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# CANADA 1948

1949

THE OFFICIAL HANDBOOK  
OF PRESENT CONDITIONS AND  
RECENT PROGRESS



# The Royal Wedding



THE Prime Minister, the Rt. Hon. W. L. Mackenzie King, who attended the wedding services in Westminster Abbey as representative of Canada, described the ceremony as "surpassing in solemnity and beauty anything expected . . . it was deeply impressive in its simplicity and other outstanding features".





*Photo by Baron—Copyright Miller Services*

HER ROYAL HIGHNESS THE PRINCESS ELIZABETH, DUCHESS OF EDINBURGH  
and HIS ROYAL HIGHNESS PRINCE PHILIP, DUKE OF EDINBURGH  
at Buckingham Palace immediately following the Wedding Ceremony  
in Westminster Abbey, November 20, 1947.

Good Copy

Canada. Bureau of Statistics



# Canada

1948 - 1949

2 v. in 1.

The Official Handbook  
of Present Conditions  
and Recent Progress

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Published by Authority of  
The Honourable James A. MacKinnon, M.P.  
Minister of Trade and Commerce

Prepared by  
**DOMINION BUREAU OF STATISTICS**  
Department of Trade and Commerce  
OTTAWA, CANADA

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OTTAWA

EDMOND CLOUTIER, C.M.G., B.A., L.Ph.,  
THE KING'S PRINTER AND CONTROLLER OF STATIONERY  
1948

## Foreword

THE "Canada" Handbook Series was initiated eighteen years ago to supplement the field of the *Canada Year Book* by offering, mainly to Canadian citizens, a brief and attractive record of current economic conditions at a price within reach of all. The *Year Book* is primarily a reference work and is not designed to meet the need for a popular publication medium: moreover, it is expensive to print and too bulky for wide distribution.

The growing popularity of the Handbook and the numerous editions and reprints that have been published over the period attest to the soundness of the original plan and to its value, especially in the schools across Canada and to business men.

The past eighteen years have seen expansion in every direction of the national economy and since a considerable proportion of space in the Handbook is allocated to illustrations, the editorial task of giving a well-balanced presentation in a publication of this size and present low cost becomes more difficult each year. Currently many thousands of copies are being distributed abroad through our Diplomatic and Trade Commissioner Services and it is desirable for these reasons alone that the Canadian economy should be explained fairly completely and that appropriate feature material should be included.

The frontispiece of H.R.H. the Princess Elizabeth, Duchess of Edinburgh, and H.R.H. Prince Philip, Duke of Edinburgh, marks the occasion of the Royal Wedding that took place on Nov. 20, 1947, at which our Prime Minister, the Rt. Hon. W. L. Mackenzie King, represented Canada.

*Jas. A. MacKinnon*

Minister of Trade and Commerce

Ottawa, January 1, 1948



## Prefatory Note

**T**HIS Handbook has been prepared and edited in the Year Book Division of the Dominion Bureau of Statistics from material that has, in the main, been obtained from the different Divisions of the Bureau. In certain special fields information has been kindly contributed by other branches of the Government Service.

The Handbook is planned to give a balanced picture of the general economic and social structure of Canada, the weight of emphasis being placed from year to year on those aspects that are currently of most importance, since there is not space to deal adequately with all. Special articles deal with "Travel and National Unity" and "Canadian External Relations". These are the result of co-operative effort between the Editorial Staff and the responsible Federal authorities, the first with the Canadian Travel Bureau and the second with the Department of External Affairs. A special treatment of the Lumber Industry in Canada is carried in the Forestry Chapter; this was prepared in close collaboration with the Dominion Forest Service, Department of Mines and Resources.

HERBERT MARSHALL,  
Dominion Statistician

# Acknowledgments

Acknowledgment is made to the following sources [by whose courtesy photographs were made available for this edition:—

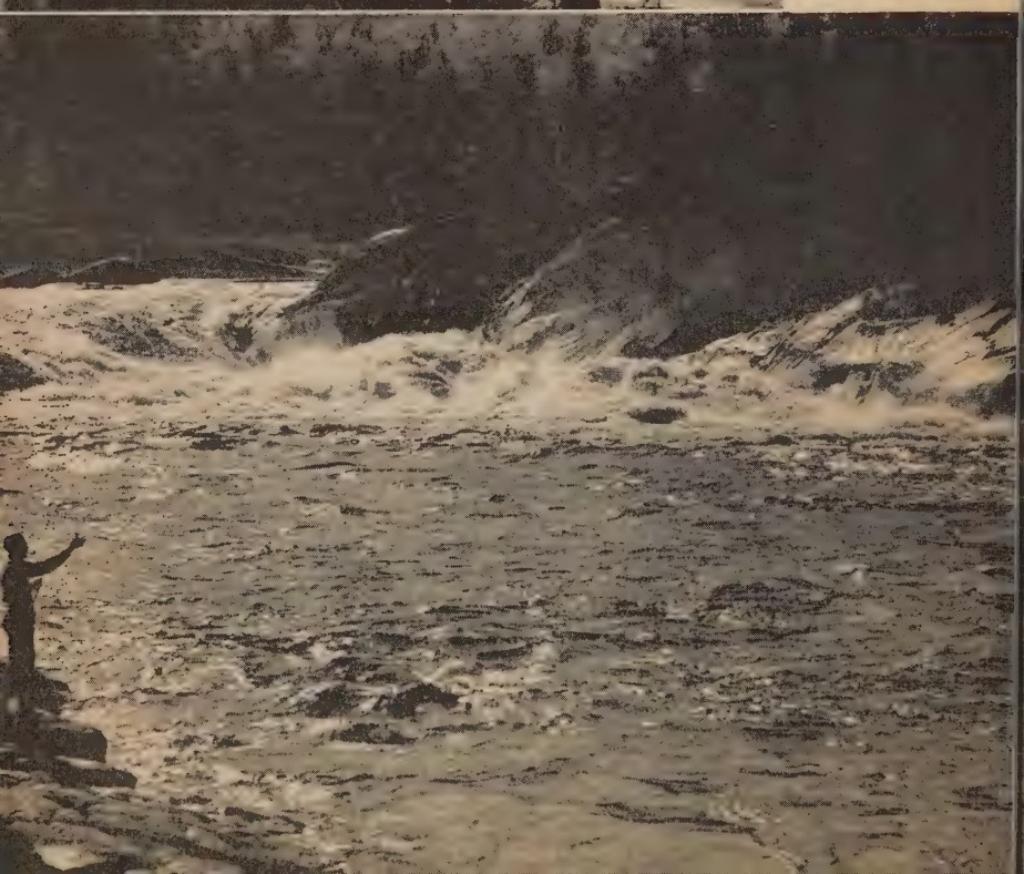
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The Cabot Trail, Cape Breton Island, N.S.



White Dog Falls on the Winnipeg River in the Lake of the Woods District of Ontario—a paradise for the angler.



This scene, north of Kipawa, Que., is typical of much of the Precambrian area of Eastern Canada.



ootenay Valley, B.C.





A combine at work on the prairies of Western Canada.

# Introduction

## Economic Conditions in Canada, 1947



*Hon. James A. MacKinnon, M.P.,  
Minister of Trade and Commerce.*

exports, and the resulting greater flow of funds is enabling business to meet more readily the interplay of wage and cost problems.

The pent-up demand for commodities and services constituted a decidedly buoyant influence in 1947 and counteracted many unfavourable effects of delay due to difficult reconversion operations and shortages of essential materials.

Still higher output is anticipated in 1948 in the mineral, agricultural, and forest-products industries. Even for newsprint, which is now operating at well over 100 p.c. capacity and cannot extend itself further, the dollar return will be greater than the record set in 1947.

Canada is fortunate in possessing generous reserves of primary materials and in the national interest these must be developed and exploited

THE period of post-war reconstruction has, for all practical purposes, now reached an advanced stage: Canada has fared better than the majority of countries in the transition to peace. At the end of 1947 the jobs being offered exceed the numbers of those seeking employment. The supply situation is being brought into balance with demand, the only limiting factor being man-power. Since the termination of hostilities encouraging progress has been achieved in expanding the production of food and other commodities and of restoring normal trade channels. All told, there are some very favourable aspects to the domestic picture. Many branches of Canadian industry are now receiving the world-market prices for their

discreetly. Progress is evident in the co-operation of business with government in conserving, restoring, preserving and utilizing the timber, mineral, productive land and other resources.

## ***Primary Production***

**Agriculture.**—The present food shortage in most countries places emphasis upon the importance of Canada's agricultural production and the bounty of the recent harvest. The 1947 wheat crop of 340,800,000 bu. was about 73,000,000 bu. less than that of 1946 and, as a result, Canada's contribution to the bread-grain requirements of other countries will be considerably diminished. After making allowances for domestic consumption and stocks at the beginning and end of the crop year, the amount available for export may not reach 200,000,000 bu. With 160,000,000 bu. earmarked for Britain, only token amounts will be left for distribution to other countries.

The reduced volume of coarse grain crops is having an adverse effect on the output of animal products. Instead of the recommended advance of 9 p.c. in the oat acreage, there was a reduction of nearly 8 p.c. The barley acreage was advanced 15 p.c., but unfavourable weather took its toll of the crop. The decline in the yields of grain in Eastern Canada was placed at more than 21 p.c. and insufficient grain was shipped from Western Canada to meet feed requirements. The domestic subsidies on coarse grains were discontinued in September and an upward readjustment of price followed. Consequently costs are increasing for producers of live stock, poultry and dairy products.

The reduction in the numbers of live stock indicates that provision is not being made for the heavy production of meats and dairy products reached a few years ago. Contracts with the United Kingdom for 1947, including 350,000,000 lb. of bacon and pork, 120,000,000 lb. of beef and 125,000,000 lb. of cheese, were not completely carried out, due to lack of supplies. Better results were obtained for eggs and milk in different forms.—

The rising cost of living was reflected in the prices received by farmers for agricultural products. The index was 8·7 points higher than during the first nine months of the preceding year.

**Forestry.**—Traditionally important in the national economy, Canadian forest industries, in order to offset depletion of the forest lands, have adopted modern planning methods, undertaken reforestation schemes and instituted educational programs to prevent fires.

The industry has recently improved its relative position as a primary producer and exporter. Dislocation caused by war has largely interfered with the re-entry of Northern Europe as a large-scale competitor.

As the output of newsprint reached a new high point of about 4,800,000 tons, it is evident that the industry contributed to the higher levels of national prosperity during the year. Canada's output is greater than the combined production of the next five leading producer countries.

**Fisheries.**—The fisheries perform an important function by adding to the food supply. Even with an ordinary productive effort, the annual output is far beyond the consuming capacity of a population of twelve



*Threshing machines ready for shipment to all parts of the world. The production of farm implements and machinery is a highly developed industry in Canada.*

millions, though the Canadian market, favoured with a supply of considerable variety, is taking a much larger proportion than during the war years. Exports of fishery products were valued at \$56,300,000 in the first nine months of 1947 compared with \$63,700,000 in 1946. Other producer countries now released from war conditions are seeking outlets in the same markets and competition is keener than it has been for some years.

**Mining.**—Canada's minerals are vital not only to the North American Continent but to the rest of the world also. Mining was one of the most effective props in Canada during the depression of the nineteen thirties and its wartime achievements are a matter of record.

A particularly encouraging feature of the higher base-metal prices is the stimulus provided to exploration and development. During the past two

years several base-metal deposits of promise have been discovered and drilling is well advanced in some of them. In the Lynn Lake area of Manitoba, a total of 4,400,000 tons of nickel-copper ore has been located. Large tonnages of copper-zinc-gold ore were disclosed on the Quemont property which adjoins the Noranda mine and plans are being considered for a milling plant.

The increase of 23 p.c. in copper production and 22 p.c. in nickel over the first nine months of 1946 is an indication of progress. The output of gold at more than 2,284,000 fine oz. was about 7·3 p.c. greater. To increase production of gold still further certain concessions and adjustments were made by the Government towards the end of 1947. Reduction occurred in the production of lead, zinc and silver from the high levels of the preceding year. Strong demand for building materials resulted in marked increases in the output of clay products, gypsum and lime.

**Electric Power.**—Water-power resources are of particular importance to the industrial and domestic life of Canada. The widespread and favourable distribution of low-cost hydro-electric power developed from these resources has been a vital factor in the rapid industrialization of the country and in the attainment of a high standard of living. The large developments in process or under consideration confirm the continuance of this trend, while the immense reserves of undeveloped power offer opportunities for future progress. Notwithstanding a large wartime increase in capacity, dislocation in power demand during the transition to a normal peacetime economy was not severe. Growing industrial and domestic demands in some areas caused a temporary shortage of power, pending the completion of new developments. The consumption of primary power rose to a new maximum in the first nine months of 1947, an increase of 24 p.c. over the same period of 1946.

### *Secondary Production*

**Manufactures.**—The better balance between demand and supply during 1947 was due in large measure to the marked activity of industrial enterprise. The impetus of the War left a permanent imprint upon the variety and efficiency of Canadian plants, and manufacturing industries generally have embarked on long-term expansion programs involving an expenditure to date of more than \$1,000,000,000, to satisfy the accumulated demand which continues to dominate the domestic market. The tremendous expansion of the past nine years has provided a foundation for stability and growth.

The magnitude of operations in the first nine months of 1947 is measured by the indexes of production, employment and of the prices of manufactured goods. Volume and employment moved up 11 p.c. and 6·9 p.c., respectively, while the index of the prices of chiefly manufactured goods (1926=100) averaged 114·3 against 98·2 for the same months of 1946.

**Construction.**—Despite the excessive costs, the construction program of the year, measured in terms of value, was somewhat more than implemented. Demand for plant and equipment being strong, expenditures should continue at record levels for some time. The immediate prospects are excellent as the placements of contracts in 1947 were more than 8 p.c. greater than the high levels of 1946.

The construction of buildings for civilian use during the war years was practically at a standstill. In order to provide adequate housing, it was considered that 700,000 new dwelling units should be built in the ten years following the War. The objective for 1947 was 80,000 units.

### *Transportation*

Rail transportation is the main co-ordinating factor forming a background for all the accomplishments of production. Effectively serving and operating continuously, the railways play a vital role in the great task of weaving together the diversified strands of activity that make up the fabric of the national economy.

Traffic continued heavy during the year, reflecting the strong demand for many types of consumer goods, the spur to agricultural production, and the call for export as well as domestic consumption. Carloadings rose 7.3 p.c. over the first 45 weeks of 1946, but the increase in the cost of operation had an adverse effect on net earnings.

### *Trade*

**Exports.**—To ease world trade and expand Canadian markets, agreements were negotiated at Geneva to go into effect for three years commencing January, 1948. These agreements define the guiding principles of international trade for the future. Canada has obtained some major adjustments in tariffs and quota restrictions particularly for her agricultural goods and manufactured products.

The invertibility of sterling into dollars has resulted in an adverse balance for Canada as against the United States of approximately \$1,000,000,000 annually, thus placing a strain on Canada's reserve of gold and U.S. dollars. Emergency measures adopted by the Government as of Nov. 17, 1947, to meet this situation included sweeping restrictions on imports and travel, a special excise tax placed on many durable goods produced in Canada, a subsidy arranged for increased gold production, and negotiations made for a short-term loan of \$300,000,000 from the Export-Import Bank. It is hoped that Canadian exports to the United States can be further increased to help offset the unfavourable balance. The flow of Canadian exports from now on will have to be more evenly balanced between 'hard' and 'soft' currency countries in order that international obligations may be kept within the limits of capacity.

**Retail Distribution.**—Canadians spent a much greater sum of money in 1947 than in 1946 for consumer products, due to increased availability of goods as imported or produced by Canadian enterprise, upward price movements and a high level of consumer purchasing power. Social security payments and the expansion of employment have assured a high level of personal income and thus a strong demand for goods at retail outlets. The chief interest both for retail merchants and for consumers centred on the return of many items long absent from the retail market and the removal of restrictions on production and sale of various types of goods which in previous years had been obtainable in limited quantities only. The increase of sales at retail amounted to 9.6 p.c. over the first nine months of 1946. Consumers increased their purchases of both durable and non-durable goods

during 1947, to register sales that promise partially to counterbalance the drop in other forms of expenditure. The repeated advance in retail sales is the largest single factor responsible for lifting the national output of goods and services to a new high point in peacetime.

**Price Movements.**—Tendencies in price behaviour during the year were similar to developments after the First World War but the changes were more restrained. The advance in wholesale prices during the twelve months ended October, 1947, was 25·5 p.c., the cost of living rising 12 p.c. An inflationary danger still exists in excessive spending and there is the necessity of sharing food with destitute people of Europe. The current inflationary price situation is placing a handicap on the post-war adjustment of the Canadian economy. Price ceilings were reimposed on processed foods during November due to rising prices and reports of excessive buying, following the announcement as to measures to conserve U.S. dollars.

## *Finance*

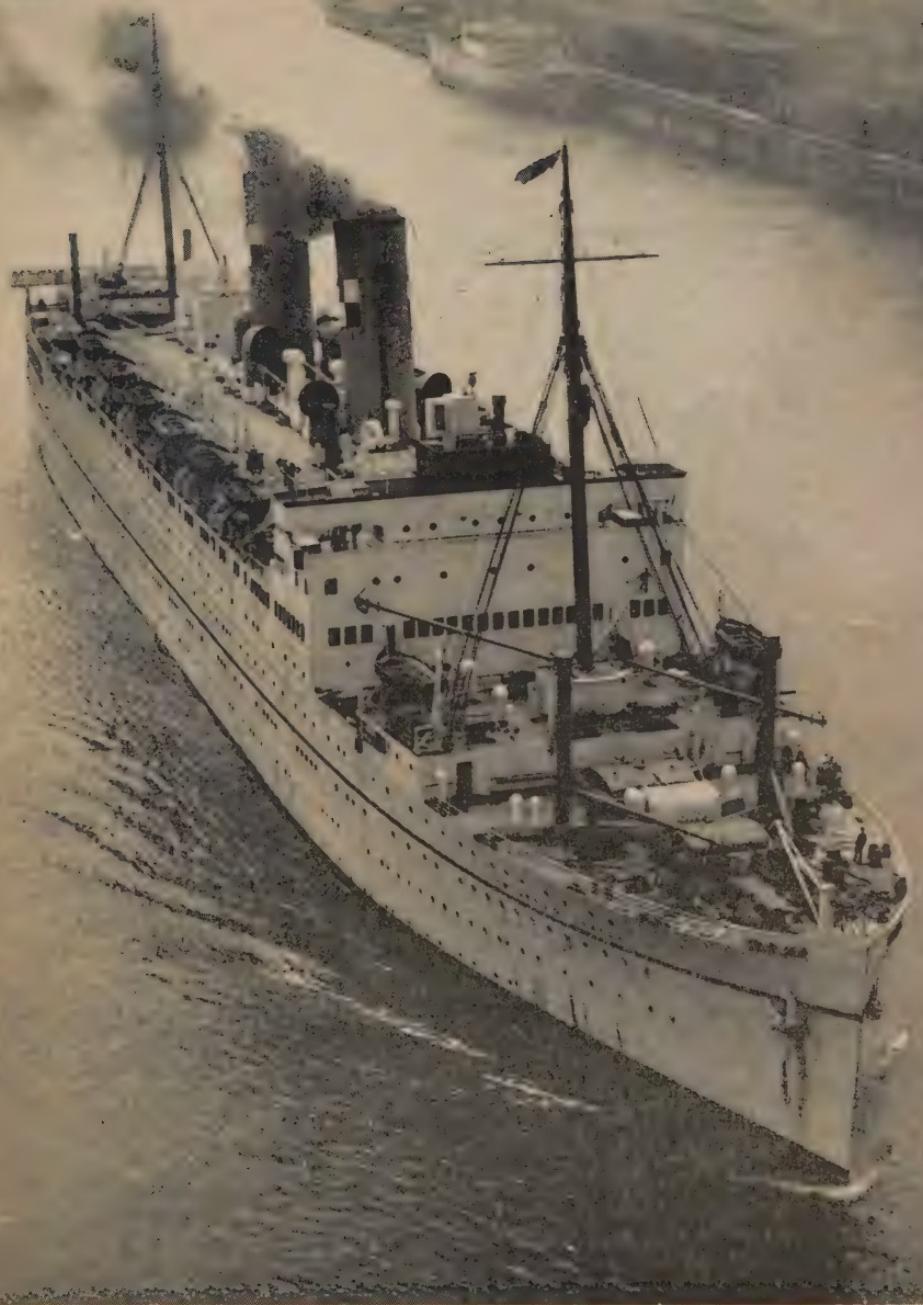
**Federal Government Expenditures.**—The aim of the Federal Government is to hold taxes and revenues at such levels in time of prosperity that the public debt may be reduced. Public works are limited to those of pressing necessity. The excess of revenue over expenditure was \$573,000,000 for the first eight months of the current fiscal year. Expenditures receded from \$1,614,000,000 in the corresponding eight months of 1946 to \$1,253,000,000, contrasting with an increase in revenues from \$1,798,000,000 to \$1,826,000,000.

Government outlay was the driving force during the war period in moving national income to new and higher levels. Thus the relative share of Government disbursements to total national expenditures was 16 p.c. in 1946 compared with 43 p.c. in 1944, the maximum of the war period. Maintenance of a high income level in coming years will require large increases in consumer expenditures and private investment to replace a reduced level of government outlay. To a greater extent than in most divisions of economic life, the after effects of war will remain dominant in the financial field for many years.

**Personal Income.**—The fluctuations in personal income or payments to individuals are determined by the level of production in a broad sense. Salaries and wages constitute the largest item in the total purchasing power of the Canadian people. The significance of wages as a factor in consumer demand for the products of industry is more direct than other forms of income because most of the wage-earner's income is usually spent for such products. Wages are the main source of income for the low per capita income groups.

The total labour income for all types of activity amounted to almost \$3,874,000,000, about 17·4 p.c. greater than the average level during the eight months of the preceding year. Increased employment and higher wage rates have both contributed to this advance. Except for the possibility of increasing output by improving industrial efficiency, the maximum level of real income would be reached with the full employment of the labour force.

Personal income has recorded consecutive increases for the past nine years. The total in 1946 was \$9,400,000,000, with a further advance forecast for 1947. The index of employment rose about 16·7 points to 194·8 in the twelve months ended October, 1947.



The "Empress of Canada" leaving Montreal Harbour. This Canadian Pacific liner, the former "Duchess of Richmond," was reconditioned after her service as a troopship during the War, and returned to service on the Atlantic in July, 1947.



# Travel and National Unity

God gives all men all earth to love,  
But, since man's heart is small,  
Ordains for each one spot shall prove  
Belovèd over all.

—Rudyard Kipling

**T**HE great need in the world to-day is for understanding among nations. Canada, a country of many races and nationalities, built up around a central core of British and French stocks (in 1941 50 p.c. of the population was of British Isles origin and 30 p.c. of French), is a living example of how two strong but widely different ethnic groups can, in the common interest, merge their differences and apply themselves to constructive nation-building.

But in Canada, as everywhere, there is room for improvement and our contribution to international amity will be advanced in proportion to our success in harmonizing the differences that persist.

The proper study of Canada begins with knowledge of ourselves for we, the people, are Canada in a fuller sense even than the land we inhabit. With a relatively small population, Canada has been brought to her present eminence among nations by the united contributions of many races speaking several languages and practising many religions. Wide differences of viewpoint there are bound to be in such a composite people. These make for virility and sturdiness of character, but they can also give rise to prejudices, sectional differences and suspicions which should have no place in any country.

The thing to do then is to recognize these varied talents for what they really are and to weave them, like many coloured threads, into the fabric of our national life so that its texture will be enriched and the pattern made more harmonious and beautiful by the skilful blending of the materials. Nothing will be achieved by attempting to reduce the varied contributions to a common denominator. Standardization, of which perhaps there is already too much, would inevitably mean the loss of this valuable heritage. What is required is a clearer understanding of the contrasts that characterize different groups of Canadians and the intelligent tolerance of differences that are healthy and justifiable even where they are not altogether acceptable to everyone concerned.

No Canadian can traverse the length and breadth of the Dominion without returning to his fireside a wiser man and a better citizen. Two world wars have taught that no country can live unto itself: it is equally true that no



*A bathing beach on Clear Lake, Riding Mountain, National Park, Man.*

---

man can live unto himself—he must circulate physically and in thought lest his mind and outlook sink into the frame of narrow sectionalism. All Canadians are brothers of one great family under the same broad roof.

The qualities, mellowed by time but vitalized by a New World environment, that characterize different groups of Canadians are many and varied. To this their native land, the sons and daughters of the Dominion have brought the pioneering spirit and industry of the French, the enterprise of the Anglo-Saxon, the fire of the Celt, the artistry of the Scandinavian, the energy and persistence of the Teuton, and the stolidity of the Slav. It is from such widely varied qualities that the mosaic of the national character as we know it is made up: from them a young, new and distinctive national type is emerging.

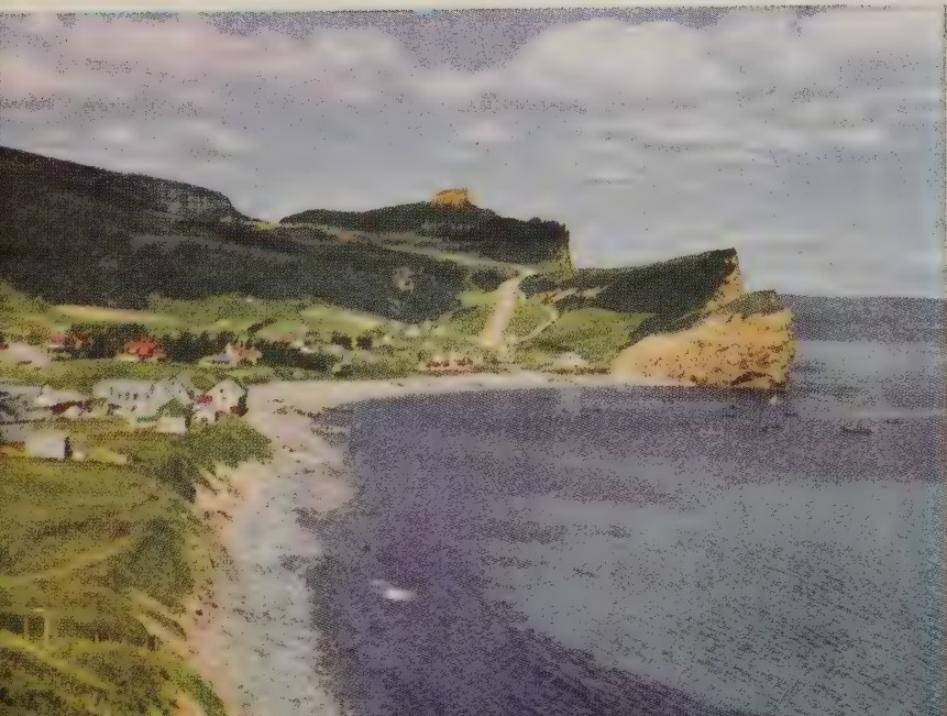
There are several ways by which those of us who live in one province may come to know better our brothers elsewhere in Canada—how they live, the influences that combine to engender a different point of view and the varying resources that frequently account for an economic or cultural way of life quite different from the one to which we ourselves are accustomed.

The study and cultivation of the national literature is probably the readiest way of knowing our fellow Canadians. It can be engaged in by even the busiest and most pre-occupied, and with little or no financial outlay in a land such as ours where free libraries abound. The study of Canadiana can be

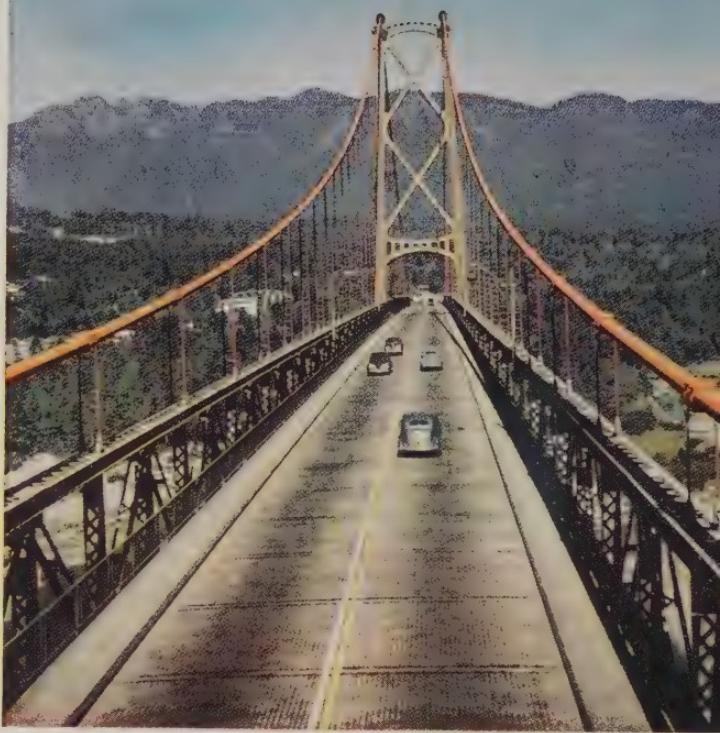


TULIPS ON THE DRIVEWAY, OTTAWA, ONT.

GASPE, QUE.



LION'S GATE BRIDGE  
VANCOUVER, B.C.



CATHEDRAL PEAK  
BANFF NATIONAL  
PARK, ALTA.



an excellent as well as a satisfying hobby. Apart from other sources, federal, provincial and local government publications contain a wealth of information to stimulate curiosity. Newspapers and the modern type of topical magazine also serve a useful purpose. Radio is another influence that it would be very difficult to overrate; and motion pictures in the form of local travelogues, or plays based on the national life and character are, without doubt, among the most valuable media for those who have neither the time nor the means of knowing and studying the various parts of Canada by personal contact.

But as a means of fostering and cementing national unity, interprovincial travel, which is simply neighbourliness extended to take in the whole of Canada, is outstanding. It can be the bridge to cultural and economic understanding for all—the leaven that, working quietly and effectively, can bring us *en rapport* one with another. For, really to understand others, one must have the will and the desire to intermingle and associate closely with them: one must see his neighbours at work and at play, and feel the influences and the forces operating in their daily lives—their customs, their simple faiths, aspirations, successes, frustrations and even their failures. The radio, books, however well written, and even motion pictures directed with this sole purpose in view, fall short inasmuch as they bring knowledge to us as we sit comfortably in our own homes or in our local ‘movie’ houses without being up-rooted from our own accustomed surroundings. Moreover, these media are too often accepted as entertainment and, therefore, do not stir us out of our immediate environment sufficiently to bring about a full measure of understanding.

Travel on the other hand is all-embracing. It is when we are transplanted and find ourselves in new surroundings conversing with new people that we are completely receptive to them and to their charms. Travel puts us in the mood to enjoy and understand, largely because of this up-rooting from the customary and the trite. Which of us, transplanted to a new soil, is not reinvigorated and does not find new interests in things that would normally be taken for granted! All who have taken an ocean trip will realize the force of this argument. Being drawn together, even for a few days, with strangers from remote places who have lived through experiences widely different from our own, we set out at once to understand them and friendships follow naturally and in easy rhythm.

One of the few benefits of the recent War was the wholesale migrations within Canada. Workers from all parts of the country were brought into the great industrial areas, specialists were sent from coast to coast and large masses of the men and women of the Services were posted to training centres sometimes thousands of miles from their homes. By such means many young men and women from all over the Dominion glimpsed for the first time parts of the country distant from those in which they were born and raised, and Canada thus came to mean something far more vital and significant to them.

It is true that all do not have the means for extensive travel, but most Canadians have it within their power to plan a holiday at least once a year. The experience of spending a few weeks in a neighbouring province among fellow Canadians whom they have never had the opportunity of knowing before is an investment that can produce rich dividends in pleasure and, more important, in tightening the bonds that bind them into one nation.



Evening at Fairburn Lake, near Gatineau Park, Que.

The exceptional beauty of the deep calm expressed by this picture is made more interesting by a bewitching trick of nature. The camera has caught the cloud effects at a moment when they present an almost uncanny interpretation of the theme behind the old French-Canadian lumber-camp legend "La Chasse-Galerie".

Courtesy. Dr. Louis-Jules Côté, Ottawa.

## *National Parks Stimulate Interprovincial Travel*

The National Parks of Canada provide one of the greatest incentives for interprovincial travel. It is not unusual to see cabin trailers from the Prairie Provinces and the far west parked in Prince Edward Island and Cape Breton Highlands National Parks, or cars bearing Nova Scotia and New Brunswick licence plates in Banff, Jasper, and other western playgrounds. The parks belong equally to all Canadians. They are dedicated to the people of Canada for their benefit, education and enjoyment. Here Canadians from all parts of the country meet in an atmosphere of tranquillity and goodwill, in a joyful holiday mood with nature presiding in awe-inspiring grandeur. Here they share in common delightful experiences which transcend all barriers of prejudice and sectionalism. When their visit is over, they take back with them not only memories of a happy and healthful holiday but a new and fuller understanding of this Canada of ours and of their fellow Canadians from other provinces.

In the development of Canada's system of national parks, stretching from British Columbia to Nova Scotia, and in dedicating these areas to the people of Canada, the Canadian Government has fostered the idea of an interprovincial exchange of visitors, as contributing to national unity and understanding. It is also recognized that recreation is a basic need for all Canadians. The fact that upwards of one million persons, mostly Canadians and their friends from south of the International Boundary, visit these parks annually emphasizes the importance of this aspect of national park development.

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In "Legends of the St. Lawrence", published by the Canadian Pacific Railway Company, 1922, under the supervision of John Murray Gibbon, well-known Canadian author and at that time general director of publicity for that Company, this French-Canadian story finds a place, along with other quaint habitant legends of Old Quebec that have been orally handed down for generations. This particular story was written by Beaugrand, a Montreal writer in the 1890's as the theme of one of his tales.

The legend concerns a few Quebec woodsmen who, after a drinking bout before New Year's, wanted to spend the night in their home village. Following an impious deal with the Prince of Darkness, under the leadership of their foreman, they shouted:

*Satan, King of the infernal regions,  
take me up into the air. Let Belzebuth  
take us straight to our goal...*

and their birch-bark canoe darted swiftly from the surface of the lake, down the Ottawa River, past Montreal to a benighted village in the Laurentians.

The clouds just over the skyline, in the picture, are shaped like two woodsmen in their canoe; the dark and ominous cloud to the left bears true resemblance to the Devil with head hovering over the tail-end of the canoe.

*Narrative by Dr. C. M. Barbeau, Ethnologist,  
National Museum of Canada, Ottawa.*



*Rugged Shoreline at Middlehead, Cape Breton Highlands National Park, N.S.*

National park areas were originally set apart to preserve the scenic beauty and natural phenomena and to conserve the wild life and the forest cover of the regions; others were formed to mark the sites of events deemed of outstanding interest in Canada's colourful history. All are wild life sanctuaries. Because of their natural beauty and interest they became popular centres for recreation and relaxation and, to facilitate their use for such purposes, roads and trails were built and improved, townsites laid out, administrative buildings constructed, camp-grounds developed, and accommodation provided. These developments have been carried out with as little disturbance as possible to the primitive character and natural beauty of the areas.

From a small beginning of 10 square miles, set apart in 1885 around the hot mineral springs at Banff, Alberta, the national parks system has grown to 25 units, with a total area of more than 29,000 square miles. Following is a list of the parks with a brief description of each.

**Prince Edward Island—**

Strip 25 miles long on shores of the Gulf of St. Lawrence. Recreational area; fine beaches. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1937; area, 7 square miles.

**Nova Scotia—**

**CAPE BRETON HIGHLANDS.** Rugged Atlantic coast line with mountain background. Fine seascapes from park highway. Recreational opportuni-

ties. Hotel and bungalow cabin accommodation, within park area. Hotel and boarding-house accommodation adjacent to park. Equipped camp-grounds. Established 1936; area, 390 square miles.

FORTRESS OF LOUISBOURG. National Historic Park with museum near Louisburg. Ruins of walled city erected by the French 1720-40. Interesting excavations. Established 1941; area, 340 acres.

PORT ROYAL. National Historic Park at Lower Granville. Restoration of "Habitation" or first fort built in 1605 by Champlain, DeMonts, and Poutrincourt. Established 1941; area, 17 acres.

FORT ANNE. National Historic Park with museum at Annapolis Royal. Well-preserved earthworks. Established 1917; area, 31 acres.

#### New Brunswick—

FORT BEAUSÉJOUR. National Historic Park with museum near Sackville. Site of early French fort. Established 1926; area, 79 acres.

#### Quebec—

FORT CHAMBLY. National Historic Park with museum at Chambly Canton. First built by French, 1665. Established 1941; area, 2·5 acres.

FORT LENNOX. National Historic Park on Ile-aux-Noix in Richelieu River, near St. Johns. Established 1941; area, 210 acres.

#### Ontario—

ST. LAWRENCE ISLANDS. Mainland area and 13 islands among the "Thousand Islands". Recreational and camping area. Mainland accessible by highway. Islands reached by boat from nearby mainland points. Established 1914; area, 190 acres.

POINT PELEE. Recreational area on Lake Erie. Camping area, remarkable beaches, southern flora. Resting place for migratory birds. Accessible by highway. Hotel and bungalow cabin accommodation in vicinity of park. Equipped camp-grounds. Established 1918; area, 6·04 square miles.

GEORGIAN BAY ISLANDS. Recreational and camping areas. Unique pillars on Flowerpot Island. Accessible by boat from nearby mainland points. Equipped camp-grounds on Beausoleil Island. Established 1920; area, 5·37 square miles.

FORT MALDEN. National Historic Park with museum at Amherstburg. Site of defence post built 1797-99. Established 1941; area, 5 acres.

FORT WELLINGTON. National Historic Park with museum at Prescott. Defence post built 1812-13. Established 1941; area, 8·5 acres.

#### Manitoba—

RIDING MOUNTAIN. Playground and game sanctuary on summit of Manitoba escarpment. Fine lakes; summer playground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1929; area, 1,148 square miles.

**FORT PRINCE OF WALES.** National Historic Park at Churchill on the shores of Hudson Bay. Ruins of fort built 1733-71. Established 1941; area, 50 acres.

**Saskatchewan—**

**PRINCE ALBERT.** Forested region dotted with lakes and interlaced with streams. Summer playground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1927; area, 1,496 square miles.

**Alberta—**

**BANFF.** Magnificent scenic playground in central Rockies. Contains noted resorts, Banff and Lake Louise. Summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1885; area, 2,585 square miles.

**JASPER.** Mountain playground and game sanctuary. Contains majestic peaks, ice-fields, beautiful lakes and famous resort, Jasper. Summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1907; area, 4,200 square miles.

**WATERTON LAKES.** Canadian section, Waterton-Glacier International Peace Park. Mountain playground with colourful peaks; varied flora and fauna. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1895; area, 204 square miles.

**ELK ISLAND.** Fenced preserve near Edmonton containing a large herd of buffalo; also deer, elk and moose. Recreational area and equipped camp-grounds. Accessible by highway. Established 1913; area, 74.8 square miles.

**British Columbia—**

**Yoho.** On west slope of Rockies. High peaks, beautiful lakes. Yoho and Kicking Horse Valleys. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1886; area, 507 square miles.

**KOOTENAY.** Encloses Vermilion-Sinclair section of the Banff-Windermere Highway in Rockies. Broad valleys, deep canyons, hot mineral springs. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1920; area, 543 square miles.

**GLACIER.** Superb alpine region in Selkirk Mountains. Great peaks, glaciers, forests, accessible by railway only. Camping, skiing, climbing. Established 1886; area, 521 square miles.

**MOUNT REVELSTOKE.** Rolling mountain-top plateau on west slope of Selkirk Mountains. Accessible by rail and highway. Summer accommodation in park. All-year accommodation in nearby town of Revelstoke. Equipped camp-grounds. Championship ski course. Established 1914; area, 100 square miles.

## **Northwest Territories and Alberta—**

Wood BUFFALO. Immense region of forests and open plains between Athabasca and Great Slave Lakes. Contains a large herd of buffalo and other game. Established 1922; area, 17,300 square miles.

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A new link in Canada's chain of national playgrounds is being forged. Negotiations with the Government of New Brunswick for the establishment of a national park in that Province are near completion. Title to an area of approximately 79 square miles situated mainly in Albert County is being provided by the Provincial Government. The area lies between the Goose and Upper Salmon (Alma) Rivers and extends northwards from the Bay of Fundy for a distance of about nine miles. It is expected that the development of the new area, including the provision of facilities for tourist accommodation and recreation, will be undertaken early in 1948.

It is the responsibility of the National Parks Bureau to administer these natural areas for the enjoyment of Canada's present and future generations. Canada is singularly fortunate in the extent and variety of her scenic and recreational areas, and the National Parks rank high among her assets in this respect. It is anticipated that these parks will continue to be used by ever-increasing numbers of Canadians in all walks of life from all parts of Canada, and by their many friends from the United States and countries abroad, and developments are being planned accordingly.

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*Lac Beauvert, Jasper National Park, Alta.*



## External Relations of Canada

CANADA has participated in world affairs on a rapidly expanding scale during recent years. In an age of diminishing distances and increasing contacts between nations, this country has a vital interest in the affairs of the world community. The Canadian attitude to the rest of the world is, like that of other countries, a complex product of historical, geographical, cultural, political and economic forces inherent in the structure of the nation.

Canada is a democratic nation of the British Commonwealth. By tradition and common experience, free political institutions, founded upon the freely expressed will of the people, are deeply rooted in the national life. First peopled by settlers from France, Canada grew to nationhood in an atmosphere of tolerance and respect as a land of two principal cultures and languages, French and English.

Canadians are increasingly conscious of their community of interest with like-minded nations. Twice within the present century, in co-operation with other free peoples, they have made important contributions in men and materials to turn back the forces of aggression.

Economically, Canada is among the principal trading nations of the world, and her prosperity is dependent to a high degree upon world trade and world prosperity. Geographically a North American nation, with close economic, social and strategic ties with the United States, she lies between two great centres of world power, the United States and the Soviet Union.

These are some of the factors underlying the nation's interest in world affairs. They determine the basic principles of Canadian external policy—the willingness to accept international responsibilities and the readiness to take full part in constructive international action. The development of international organizations on a broad scale is recognized as of first importance to Canada.

Active support of the United Nations is thus a central feature of her policy. At the first meeting of the Assembly in 1946, Canada was elected to membership on the Economic and Social Council and the Atomic Energy Commission and, at the second regular session of the Assembly in 1947, was elected to membership on the Security Council for a two-year term. Canadian delegates have taken an active part in all the specialized agencies of the United Nations.

**The Historical Background of Canada's National Development.**—The emergence of Canada as a nation was paralleled by her historical evolution from colonial dependence to full autonomy, an evolution whose turning point was the introduction of Responsible Government in the 1840's.



President Truman of the United States and Prime Minister W. L. Mackenzie King, on the occasion of Mr. Truman's official visit to Ottawa, June 10-12, 1947, leaving the United States Embassy on their way to the Parliament Buildings where the President addressed members of the Senate and the House of Commons.

*Confederation to the First World War.*—Autonomy in the conduct of domestic affairs and independence in fiscal matters (including the right to impose protective duties on British imports), through a responsible cabinet system of government, had been achieved before Confederation. In the interval between 1867 and 1914 significant advances were made in the growth of autonomy in external matters. The principle had become established that Canada was free to withdraw from British commercial treaties with foreign countries; new commercial treaties contracted by Great Britain were now extended to Canada only with her consent; and separate commercial treaties were in fact negotiated by Canadian Ministers or officials though such agreements were still signed by British plenipotentiaries. Canada was also a separate member of certain international bodies, such as the Universal Postal Union.

Autonomy was widest in the conduct of relations with the United States. Thus the International Joint Commission provided for by the Boundary Waters Treaty of 1909, consisted of Canadian and United States members only, and the abortive Reciprocity Agreement of 1911 was negotiated directly between Canadian and United States representatives.

"High policy", however, was still a function of the British Government. Canada and other Dominions were not consulted about the understanding reached with France and Russia through which Great Britain sought to confront the growing challenge of Germany and her allies. The declaration of war in 1914 was made by the British Government alone and was deemed to cover the whole Empire, though it remained for each self-governing Dominion to decide through its own government and parliament whether to participate actively, and, if so, the manner and extent of participation. That Canada and her sister Dominions did participate at once and without stint is evidence of the validity of the principle of self-government which had been increasingly extended during the preceding century to those parts of the Empire settled by European stock.

*Constitutional Development during the First World War.*—The War hastened constitutional change. In 1917 the Dominion Prime Ministers were invited to sit with the British War Cabinet to form an Imperial War Cabinet, a new institution designed to co-ordinate the war effort of the Empire and to decide questions of high policy relating to the War. As the War drew to a close the Dominion Prime Ministers under the leadership of Canada's Prime Minister, Sir Robert Borden, sought and obtained the right to separate representation at the Peace Conference. The Peace Treaties negotiated at Paris were signed separately by Canada and her sister Dominions, Australia, New Zealand and South Africa, and by India, and ratified separately on their behalf.

In the new League of Nations, again upon the insistence of the Dominion Prime Ministers under the leadership of Sir Robert Borden, the Dominions and India were accorded separate membership. Thus by 1919 Canada and the other Dominions had won a separate, though not as yet completely independent status in world affairs.

*The British Commonwealth of Nations.*—The early 1920's, however, witnessed a reversal of the apparent trend towards centralization in Empire policy which seemed to have developed during the years of war and peace-making. The Pacific Halibut Treaty of 1923 was negotiated and signed by a Canadian Minister alone. The final Treaty of Peace with Turkey, the Treaty of Lausanne, was made by the United Kingdom alone. The Dominions were neither invited nor did they ask to participate. In the negotiations prior to the Locarno Treaty, in which the United Kingdom and Italy guaranteed the territorial settlement between Germany on the one side and France and Belgium on the other, the Dominions took no part, the Treaty declaring that none of the Dominions nor India would be bound thereby except with their own consent. In 1924, Ireland, which had acquired dominion status in 1921, appointed a Minister to Washington, a right accorded to Canada by agreement between the British and United States Governments in 1920, but not up to that time exercised.

These and other developments seemed to require a restatement of the position of the Dominions, a step taken at the Imperial Conference of 1926, when a special committee of which Lord Balfour was Chairman brought in a report that was adopted by the Conference. This report confirmed the constitutional advances already made, including the right to separate diplomatic representation as well as the right to separate negotiation,

## The Function of the Opposition in Canadian Parliamentary Practice

The Opposition occupies an essential place in the British Parliamentary System. Like many other institutions such as that of Prime Minister, for instance, it is not recognized in the written constitution (which for Canada is the British North America Act) but takes its place with the many unwritten arrangements, tested by time, that have been accepted and become firmly established.

Beauchesne (*see* Beauchesne, Parliamentary Rules and Forms, 3rd ed., 1943, p. 94) traces the title "His Majesty's Opposition" back to 1826 when Hobhouse (later Lord Broughton) remarked, during debate in the Imperial House of Commons, that it would be hard on His Majesty's Ministers to raise objections, but he thought it would be even harder on *His Majesty's Opposition* to compel them to take that course. Canning immediately hailed the phrase as a happy one. Tierney added that a better phrase could not have been invented "to describe us, for we are certainly to all intents and purposes, a branch of His Majesty's Government".

As recently as 1931, Ramsay MacDonald, Prime Minister of the United Kingdom, acting as witness before a Select Committee on Procedure expressed the relationship of the Opposition to the Government very cogently: "The House of Commons", he said, "consists of not only a Government, but of an Opposition and they have both got functions and rights".

The choice of the Canadian electorate then not only determines who shall govern Canada but, by deciding which party receives the second largest number of seats in the House of Commons, it settles which of the major parties becomes the Official Opposition. The function of the Leader of the Opposition is to offer intelligent and constructive criticism of the government of the day. Sir Charles Tupper in a farewell letter to the Canadian Conservative Party on Jan. 17, 1901, said "the duty of Her Majesty's Loyal Opposition is to exercise its vast influence in restraining vicious legislation and in giving a loyal support to proposals of the Government which commend themselves as in the interests of the country".

If criticism by the Opposition were sufficiently effective it could overthrow the existing government and the Leader of the Opposition might then, as a result of the ensuing election, find himself in the Prime Minister's seat.

Although the position of Leader of the Opposition is not recognized in the British North America Act, it received statutory acknowledgement in Canada in 1927. Under the Senate and House of Commons Act of that year, the Leader of the Opposition is paid an annual salary of \$10,000, in addition to his indemnity as a Member of the House. The situation, whereby the public supports a leader whose function it is to oppose in debate the government in power, is sometimes difficult to comprehend by those who do not understand democracy as practised by occidental countries.

## *Record in Office of the Prime Minister*

On June 10, 1947, William Lyon Mackenzie King, who celebrated his 73rd birthday anniversary on Dec. 17, 1947, completed his twentieth year and entered upon his twenty-first year in office as Prime Minister of Canada. On June 3, 1947, Mr. King's tenure of office as Prime Minister equalled one-quarter of the period since Canada has been in Confederation. He has held that office for a longer time than the head of any other government in the world to-day has held similar office.

Mr. King has shouldered the responsibilities of leadership in shaping the destinies of Canada during a period that has proved to be critical economically and of profound significance constitutionally.

In comparing his term of office with those of other Prime Ministers of the nations of the Commonwealth it is necessary, because of leap years, to give the figures in days.

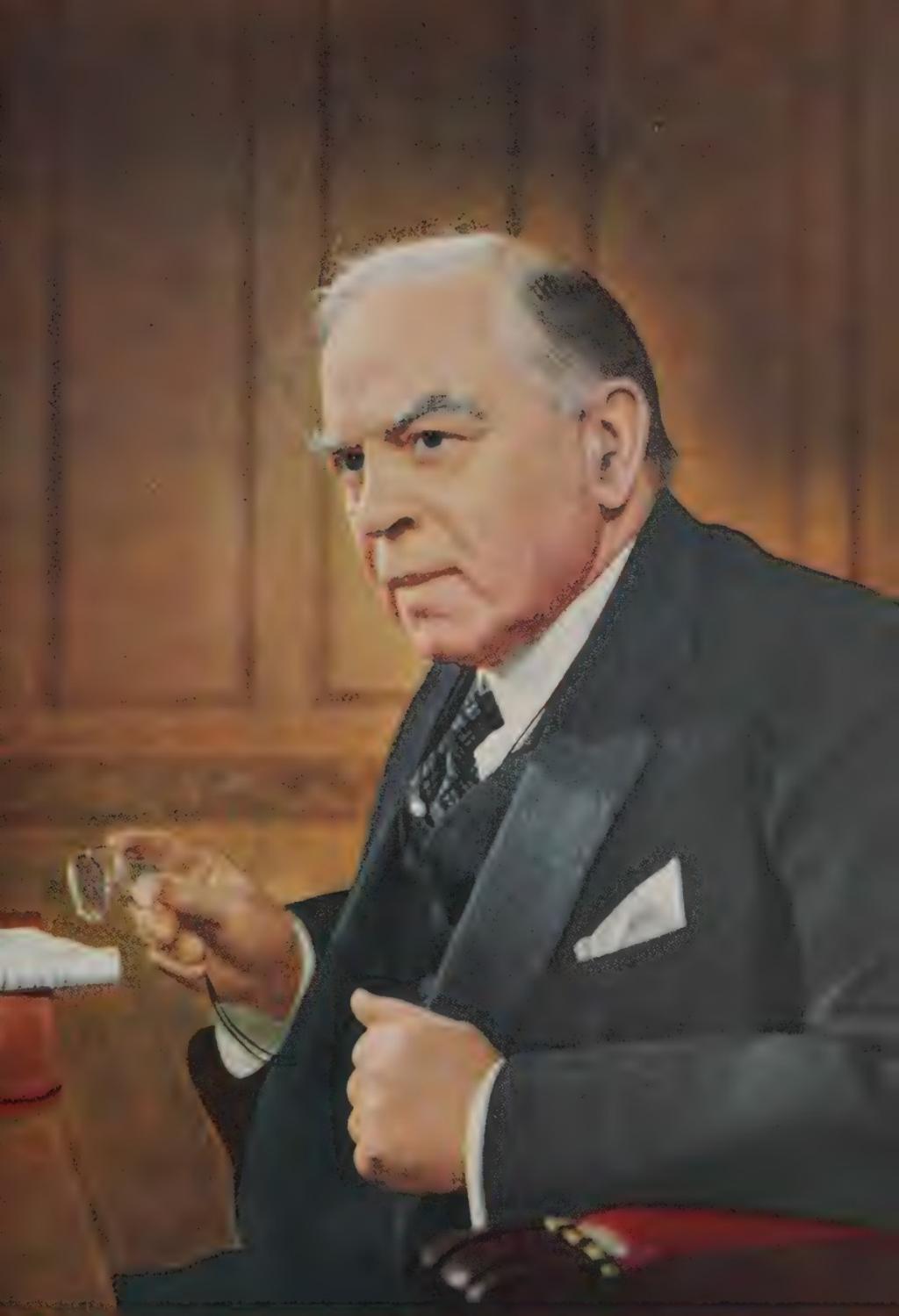
For example, William Pitt held office for 6,911 days (18 years, 11 months, 3 days). On May 12, 1946, Mr. King equalled Pitt in length of service.

Sir John A. Macdonald served a total of 6,937 days (18 years, 11 months, 26 days). By June 9, 1946, Mr. King passed this record.

Sir Wilfrid Laurier served a total of 5,564 days (15 years, 2 months, 26 days). This record was equalled by Mr. King on Sept. 5, 1942.

As of Jan. 1, 1948, the record of service for *any* Prime Minister of the nations of the British Commonwealth is still held by Sir Robert Walpole (later the Earl of Orford), the first Minister to be designated "Prime Minister" of the United Kingdom. Sir Robert was Prime Minister from Apr. 3, 1721 to Feb. 11, 1742—7,620 days (20 years, 10 months, 9 days). The date on which Mr. King will equal this record will be Apr. 20, 1948.

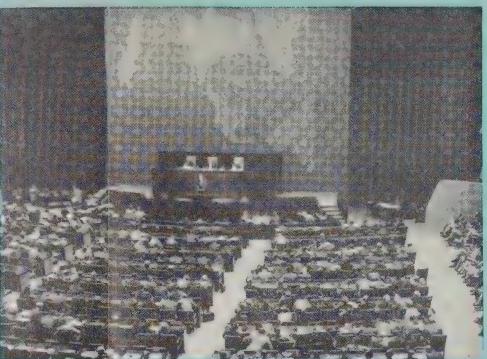
On Nov. 18, 1947, His Majesty King George VI conferred on Mr. King the coveted Order of Merit at the same time graciously indicating the Sovereign's esteem for Mr. King's contributions to the system of British Government during a quarter of a century of political leadership. The honour carries with it special distinction and membership is limited to only twenty-four. Mr. King now takes an appropriate place, both on grounds of personal merit and as a representative of Canada, in the select company of such great men as Lord Halifax, Winston Churchill, Augustus John, John Masefield, Alfred Whitehead, Sir Gilbert Scott, Field Marshall J. C. Smuts—the only other Dominion Prime Minister similarly honoured—and General D. D. Eisenhower, the sole Honorary Member.



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THE RIGHT HONOURABLE WILLIAM LYON MACKENZIE KING, O.M.  
*Prime Minister of Canada*

# EXTERNAL RELATIONS AND DIPLO



While Canada's Delegation to the United Nations meets and works with all Member Nations and shoulders its share of responsibility in international affairs, there are at the Canadian capital city, Ottawa, diplomatic representatives of many nations which maintain the Offices of High Commissioners, Embassies and Legations. In addition, there is a large Consular Corps throughout Canada.

## HIGH COMMISSIONERS

	United Kingdom
	Australia
	New Zealand
	South Africa
	Ireland
	India

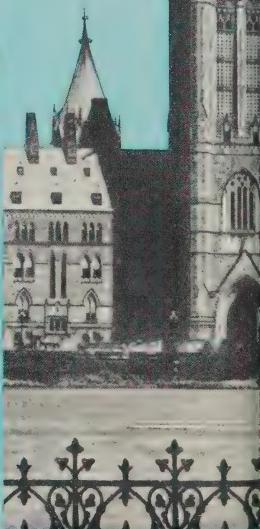
## EMBASSIES

	Argentina
	Belgium
	Brazil
	Chile
	China
	France
	Greece
	Mexico
	The Netherlands
	Peru
	Turkey
	U.S.S.R.
	U.S.A.

## LEGATIONS

	Cuba
	Czechoslovakia
	Denmark
	Italy
	Norway
	Poland
	Sweden
	Switzerland
	Yugoslavia

Finland, Iceland, Luxembourg and Uruguay have completed arrangements to send Representatives to Ottawa.



# ATIC REPRESENTATION AT OTTAWA

SOME OF THE EMBASSIES AND OFFICIAL RESIDENCES AT OTTAWA



ARGENTINA  
120 Lansdowne Road



BELGIUM  
395 Laurier Avenue East



BRAZIL  
400 Wilbrod Street



CHINA  
207 Wellington Street



UNITED KINGDOM  
"Earscliffe"



AUSTRALIA  
407 Wilbrod Street



NEW ZEALAND  
107 Wurtemburg Street



FRANCE

John and Sussex Streets



MEXICO  
570 Island Park Drive



UNION OF SOVIET  
SOCIALIST REPUBLICS  
285 Charlotte Street



UNITED STATES  
OF AMERICA  
100 Wellington Street



JOHN BRACKEN  
*Leader of the Opposition in the House of Commons*

signature and ratification of treaties on behalf of a Dominion. It also gave official sanction to a new title for self-governing British nations as a group—the British Commonwealth of Nations—and defined the status and relations of the United Kingdom and the Dominions in a statement which has become classic. "They are autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or external affairs, though united by a common allegiance to the Crown, and freely associated as members of the British Commonwealth of Nations."

The years following the Imperial Conference of 1926 witnessed wider application of the principle of equality of status. The Governor General henceforth became representative of the King alone, rather than of the United Kingdom Government, and came to be appointed by His Majesty on the nomination of his Canadian Ministers alone. The British Government since 1928 has been represented in Canada by a High Commissioner. Similar steps were taken with respect to other Dominions. Canada had maintained her own High Commissioner in London since 1880, though the functions of this office were not preponderantly diplomatic until after the First World War. The present Canadian diplomatic service had its beginning with the establishment of a Legation at Washington in 1927. For a decade before the Second World War, it had thus been clearly recognized that the Dominions were to all intents and purposes completely autonomous in their external as well as their internal affairs. But the question whether they had the right to remain neutral in a war in which the United Kingdom was engaged remained still unanswered. Although the Commonwealth countries had been kept fully informed by the United Kingdom regarding the drift of events in Europe, they had made no commitments to participate should war come. When the United Kingdom declared war, there was momentary confusion as to whether Canada was legally at war. Parliament had been called, and the Government at the opening, declaring its stand for participation, asked for Parliament's approval. After three days' debate Parliament gave overwhelming assent and war was declared Sept. 10, 1939, on the authority of this decision.

For the week intervening between the declaration of war by the United Kingdom and the declaration of war by Canada, the United States recognized Canada's neutrality by permitting her to buy supplies of war as she could not have done under the United States Neutrality Act if she had been regarded as a belligerent. Germany during the week refused to close the office of her Consul-General in Ottawa, thus also recognizing Canada's neutrality. Canada's right to declare war or to remain neutral in a war in which Great Britain was engaged, the ultimate test of sovereignty, was thus formally recognized by foreign nations.

*The Recent Years.*—The First World War hastened Canada's growth in status, the Second brought increased responsibilities of nationhood. With the fall of France in 1940, Canada at once moved to the defence of Newfoundland, which had hitherto been a responsibility of the United Kingdom. By agreement with the Newfoundland and United Kingdom Governments Canada took over for the duration of the War the Newfoundland airport at Gander and the seaplane base at Botwood, and constructed new air bases at Torbay near St. John's and Goose Bay, Labrador, acquiring a 99-year

lease of the latter for military purposes. In co-operation with the British Admiralty, Canada also constructed and operated a naval base at St. John's for the protection of convoys, and for repairing merchant and naval ships.

These bases were of great importance not only for the defence of North America, but for providing protection to convoys and, in the case of Gander and Goose Bay air bases, for ferrying aircraft to the United Kingdom and Europe. With the expansion of naval forces Canada assumed increasing responsibilities for the protection of convoys on the North Atlantic, and on the invasion of Europe, she was able to assume responsibility for the protection of all convoys, except special troop convoys, between North America and the United Kingdom.

A second important development was the Ogdensburg Agreement of August, 1940, negotiated between Prime Minister King for Canada and President Roosevelt for the United States, by which it was agreed to establish a Permanent Joint Board on Defence, to "study" the problems of defence of the "northern half of the western hemisphere". Under the ægis of the Board, plans were made to strengthen the defences of North America. Among other arrangements was that for the construction of the Alaska Highway by the United States across Canadian territory and the development by Canada of a chain of air bases between the United States border and Alaska. Plans were also developed for the joint defence of the Atlantic Coast, including Newfoundland, where in 1941 the United States was granted by the United Kingdom three bases on 99-year lease.

The Board was intended to be a permanent arrangement and has continued to operate since the War. It has no administrative powers; its method is rather to make joint recommendations to either or both Governments, which then decide what action should be taken.

In 1941 Canadian troops were sent to Hong Kong to assist British forces there. Hong Kong was attacked by Japan at the same time as Pearl Harbour, and Canada immediately declared war on Japan—a few hours ahead of either the United States or the United Kingdom. By agreement with her allies Canada's military efforts abroad were largely concentrated in the European and Atlantic theatres while hostilities were in progress there, but forces were being deployed to take part in the war in the Pacific when military operations there came to a sudden end. The experience of the War indicated clearly that Canada must take a greater share in maintaining peace in the Pacific region.

With expansion of her military, naval and air forces during the War, Canada became an important military power. Over 1,000,000 were enlisted in the Armed Services—about one-twelfth of her total population. When the War came to an end in Europe a complete army was in the field, the Canadian Navy then ranked third among the naval forces, and the Royal Canadian Air Force fourth among the air forces, of the United Nations.

During the War huge quantities of materials were made available without charge to the United Kingdom and other United Nations by a system of Mutual Aid similar to the Lend-Lease system of the United States. Canada also experienced a phenomenal economic development, particularly in the production of munitions, mechanical military equipment, ships and aircraft. For two years she ranked as the world's second largest exporter, four-fifths of her exports consisting of war material.

Canada emerged from the War with an immensely greater productive equipment than in 1939, and as a relatively large creditor nation on current account. The reconstruction of Europe and the rebuilding of international trade are essential to Canada's interests as a great trading nation and Canadian resources have been directed to this end as well as to internal reconstruction. By the end of 1947, over \$2,000,000,000 in export credits and relief had been made available to her recent Allies, including a loan of \$1,250,000,000 to the United Kingdom. Canada also gave strong support to the establishment of the International Bank for Reconstruction and Development and the International Monetary Fund. She took an active part in promoting the International Trade Organization of the United Nations and in working out the charter of the Organization which was drafted in 1947 at Geneva.

**The Growth of Canada's Diplomatic Service.**—The Department of External Affairs was set up by the Government in 1909. The Washington Legation having been opened in 1927, the Agent-General in Paris was elevated to the rank of Minister the following year and in 1929 a Legation was opened in Tokyo. The development of the new service was halted during the depression years of the 1930's. Only one further advance was made before the outbreak of war: in 1939, Canadian Legations were established in Belgium and the Netherlands, with the two missions served jointly by one Canadian Minister. The urgent needs of the Second World War made necessary a rapid extension of Canadian representation abroad. New missions were opened in all member States of the British Commonwealth and in many foreign countries. The growth of the Canadian diplomatic service continued after the end of the War, with the recruitment of personnel returning from the Armed Forces. By the autumn of 1947, the Department of External Affairs was responsible for Canadian diplomatic or consular establishments in thirty-three countries.\*

At present there are Canadian Embassies in Argentina, Belgium, Brazil, Chile, China, France, Greece, Mexico, the Netherlands, Peru, Turkey, the Union of Soviet Socialist Republics, and the United States. Canadian Legations are located in Cuba, Czechoslovakia, Denmark, Italy, Norway, Poland, Sweden and Switzerland. The Ambassador to Belgium is also accredited as Minister to Luxembourg.

Canada has High Commissioners in the Commonwealth countries of Australia, India, Ireland, Newfoundland, New Zealand, South Africa, and the United Kingdom and has agreed to exchange representatives with Pakistan.

The Canadian Consular Service was first established during the Second World War. In the United States there are at present Consulates-General in New York and Chicago, and a Vice-Consulate in Portland, Maine. There are Canadian Consulates-General in Brazil (*São Paulo*), in Portugal (*Lisbon*), and in Venezuela (*Caracas*).

Canada is also represented in enemy countries still occupied by Allied troops. There is a Canadian Military Mission in Berlin, and a civilian Liaison Mission in Tokyo.

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\*At the time of going to press with this edition of the Handbook (Jan. 3, 1948), it was announced that Canada had established an additional Legation in Yugoslavia.



The United Nations Security Council discusses the Greek question at Lake Success N.Y., July 15, 1947. Representatives of Greece, Albania, Bulgaria and Yugoslavia were invited to take places at the Security Council table during the discussions.

With reference to the great expansion of the Canadian diplomatic service during recent years, the Secretary of State for External Affairs, the Right Honourable L. S. St. Laurent, has said: "We have not taken this step merely through a desire to follow a conventional practice, or to advertise ourselves abroad. We have done so because our geography, our climate, our natural resources have so conditioned our economy that the continued prosperity and well-being of our people can best be served by the prosperity and well-being of the whole world. We have thus a useful part to play in world affairs, useful to ourselves through being useful to others, and to play that part we must have our spokesmen amongst our neighbours".

**Canada and International Organizations.**—The role of Canada in the growing structure of international organization reflects a conviction that the widest possible measure of international collaboration is needed to promote general security and well-being in the post-war world. As a nation with increasing external interests, but of relatively small population, Canada recognizes that its own contribution can most effectively be made through the instrument of international organization.

Canada from the outset took an active part in the organizations developed by the United Nations before the conclusion of hostilities to serve the needs of peace. She contributed to the first of these, the United Nations Relief and Rehabilitation Administration, \$154,000,000, and was the third largest contributor, both in her share of the costs and as an actual supplier of goods. In 1947, with the conclusion of UNRRA operations, a further \$20,000,000 was made available for continuing relief needs in Europe.

Canada has been a member of the Food and Agriculture Organization of the United Nations from its beginning at Hot Springs in 1943. At Bretton Woods in 1944 Canada played a prominent part in drafting the constitutions of the International Monetary Fund and the International Bank for Reconstruction and Development—the financial institutions backed by the member nations to facilitate the revival and expansion of the world economy through the promotion of exchange stability and the flow of investment capital for the rebuilding of devastated areas and the development of natural resources.

As a pioneer in the development of civil aviation, vitally interested in the promotion of international co-operation in this field, Canada played a leading part in the discussions in 1944, leading to the setting up of the International Civil Aviation Organization. Montreal, the scene of the first Assembly of the provisional body, was chosen as the permanent headquarters of the Organization.

In the United Nations, from its first conference, Canada has been represented by strong, parliamentary delegations. At San Francisco, her delegates urged that representation on the governing bodies of the United Nations should be determined on a functional basis under which those countries, large or small, that had the greatest contribution to make to the particular object in question, would be members. The Canadian Delegation was largely responsible for having this principle of functionalism set forth in Article 23 of the Charter, which governs the election of non-permanent members of the Security Council.

According to Article 23, the primary consideration determining the election of the non-permanent members of the Security Council should be their contribution "to the maintenance of international peace and security and to other purposes of the Organization". "Equitable geographical distribution" should be a secondary consideration. This functional principle, however, has not always been adhered to in practice by the Assembly.

At the San Francisco Conference, the attitude of the Canadian Delegation throughout the controversy over the veto power in the Security Council was that the unanimity rule was undesirable and unnecessary, particularly in relation to the peaceful settlement of international disputes, and that it might seriously weaken the Security Council. When it became apparent that the joint statement of the Sponsoring Powers interpreting the voting formula represented the greatest possible measure of agreement which could be achieved among them at that time, the Canadian Delegation took the view that, while they could not accept this interpretation of the voting procedure as satisfactory, it was not too high a price to pay for a world organization which was good in other respects. Canada, therefore, did not oppose the adoption of the Security Council's unanimity rule.

The Canadian Delegation was influenced in this decision by the statements of the major powers that their special voting positions would be used with a sense of responsibility and consideration for the interests of smaller nations. Canada has since expressed concern at the impairment of world confidence in the Council's efficiency because of its inability to reach prompt and satisfactory decisions on a number of questions—due largely to the use of the veto power. She has favoured the reform of procedures within the terms of the present Charter to minimize the danger that the special voting privileges of the great powers might prevent the Council from reaching prompt and effective decisions.

Canada was elected to the Security Council for a two-year term at the second regular session of the Assembly in 1947. It is the Canadian view that each member of the Security Council should exercise its rights and responsibilities not in its own special national interests, but for the good of the United Nations as a whole, and that of the peoples the United Nations represents.

In the field of atomic energy control, Canada's contribution in research, in raw materials, and the early development of a pilot plant led to Canadian participation from the start in negotiations to bring atomic energy under international control. Canada was associated with the United Kingdom and the United States in the Washington Declaration on atomic energy issued in November, 1945, which recommended that a commission of the United Nations be established to meet the problems of international control.

Canada was given a permanent place on the Atomic Energy Commission of the United Nations set up by the first Assembly to draft measures for the control of atomic energy so as to ensure its use only for peaceful purposes, and to draft proposals with regard to controls necessary to protect complying States against the hazards of violations and evasions.

The Canadian Delegation took a leading part in drafting the portion of the United Nations Charter which deals with the Economic and Social Council. It urged that the Council's authority within the United Nations be made as great as possible within the agreed scope of studies, reports and recommendations, and that its co-ordinating functions with reference to the specialized agencies be comprehensive.

Canada was elected to membership on the Economic and Social Council for a three-year term at the first session of the Assembly, and is at present represented on five of the commissions set up by the Council—the Narcotic Drugs, Economic and Employment, Social, Statistical, and Population Commissions. Delegations from Canada have participated in all the sessions of the Economic and Social Council.

The Prime Minister, Right Honourable W. L. Mackenzie King, speaking on the occasion of the second anniversary of the signing of the Charter, said of the Economic and Social Council: "This important work is less spectacular and less well known than that of other United Nations organs. It is, however, the real foundation of international co-operation and lasting peace".

Canada is an active member of all the specialized agencies that have been brought into relationship with the United Nations through the Council, and has participated in the setting up of those still in process of organization. These include the International Labour Organization, the International Civil Aviation Organization, the Food and Agriculture Organization, the United Nations Educational, Scientific and Cultural Organization, the International Bank of Reconstruction and Development, the International Monetary Fund, the Universal Postal Union, the International Telecommunications Union, the World Health Organization, the International Refugee Organization, and the proposed International Trade Organization.

Prime importance is also attached to the juridical functions of the United Nations. In the Canadian view, no enduring system of general security can be established in the absence of an international order based upon justice and regulated by law.



The Right Hon. L. S. St. Laurent (left),<sup>7</sup> Canadian Secretary of State for External Affairs, delegation chairman, Kuzma K. Kiselev (centre), Byelorussian SSR delegation chairman, and Souza Costa (right), Brazilian representative, at the first meeting of Committee I (Political and Security) of the Second Session of the United Nations General Assembly. That Committee unanimously adopted the resolution recommending the admission of Pakistan and Yemen to the United Nations—Lake Success, N.Y., Sept. 24, 1947.

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Recognizing the obligations that Canada has assumed as a member of the United Nations, the Canadian Parliament has passed legislation giving the Government power to implement immediately any decision of the Security Council regarding economic sanctions against an aggressor nation. Canada is among the first to have taken this step, and is anxious to do the same with regard to military sanctions as soon as the Security Council is ready to negotiate military agreements with the member nations.

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Canada has grown to mature nationhood in the eighty years since Confederation, and has accepted the obligations and responsibilities of a sovereign power. Through a comprehensive system of representation in other countries, and through effective participation in international organizations, she hopes to play her part in the establishment of an era of peace and growing well-being in the world. This is, and must continue always to be, the fundamental purpose of Canada's external policy.

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# Population

**A**LTHOUGH Canada is the largest country in the Americas, yet, due to her topography and surface characteristics, she is not capable of supporting an over-all population as dense as her size would imply. Certain areas such as the St. Lawrence Valley, parts of the Maritimes and the coastal plains of the Pacific are exceedingly fertile and situated in latitudes that invite a vigorous population growth but, by and large, these areas are limited in extent and widely separated from one another. Vast areas are suited only to the growing of timber or are economically valuable as potential sources of mineral wealth. In either case, the permanent settlement in such areas will be of very limited proportions.

When Canada's first census was taken in 1666 to measure the advancement made by this French colony since the founding of Quebec 58 years earlier, it was found that there were 3,215 inhabitants. About one hundred years later, that population, settled along the shores of the St. Lawrence River with its western outpost at Montreal, had increased to about 70,000; what is now the Maritime Provinces had another 20,000. The coming of the United Empire Loyalists and their settlement in the Eastern Townships and along the Upper St. Lawrence, Lake Ontario and the Niagara Peninsula in the last quarter of the eighteenth century, opened up new areas and Canada began the nineteenth century with a population of probably 400,000.

The year 1851 marks the beginning of the regular decennial census, so that there has been a continuous measure of population growth in Canada over the past 90 years. The last half of the nineteenth century was characterized by large numbers of immigrant arrivals by a large outward movement from the country mainly of immigrant population, and by the movement of native population from the more thickly settled parts of Quebec and the Maritimes to other parts of the country where the population was more thinly distributed.

But it was within the first decade of the present century that the most spectacular expansion of the population of Canada took place. The outstanding feature was, of course, the opening to settlement of the West. The unorganized southern stretch of the Northwest Territories, ceded to the Dominion by the Hudson's Bay Company soon after Confederation, had been traversed by the Canadian Pacific Railway between 1875 and 1885. But, though the western population had roughly doubled in each of the decades ended 1881, 1891 and 1901, it was only with the discovery of the wheat-growing potentialities of the prairies and the launching of a large-scale immigration movement after 1900 that western settlement became a factor of first importance. In the decade 1901-11 immigration exceeded 1,800,000 and, though at least a third of these were lost to Canada, it formed the chief factor in the gain of 34 p.c. which the total population registered in that period and which was larger than the relative growth of any other country during the same period. The



A T.C.A. aircraft flying over an old Quebec village. In the days of the French régime, attacks by Indians forced the settlers to divide the land into triangular sections with the houses clustered together in the centre for protection.

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movement was continued in the first three years of the second decade of the century after which a recession set in to which the outbreak of war gave a new and wholly unexpected turn. Nevertheless, Canada's relative gain for that decade was again among the largest in the world.

After the War of 1914-18, immigration never again reached anything like its former levels and during the depression years of the 1930's it was still further restricted by Government regulations as well as by economic necessity. The population increase in the decade 1921-31 amounted to 18.1 p.c. and in the decade 1931-41 to 10.9 p.c. During the latest decade, and even to some extent in the previous one, the trend of movement of population has been from the Prairie Provinces to Ontario and to British Columbia, the percentage increase in British Columbia in these two decades being higher than in any other province.

The trend towards urban life in Canada is very striking. Early in the second half of the nineteenth century signs of an increase in the small urban proportion were beginning to be seen, and with the expansion of manufacturing and service industries and the increasing ease of transportation and communication, that proportion grew continuously. In 1871, 19.6 p.c. of the

population were urban dwellers, in 1901 37·5 p.c., in 1921 49·5 p.c. and in 1941 54·3. The great advance of employment during the war years in the larger cities of Canada is evidence of the drain from country to city that has taken place since the 1941 Census.

Canadians do not form a compact group like the many European nations, but are a collection of diverse races moulding themselves into a nation that takes its pattern from the land of their adoption. At the time of Confederation, the largest individual British racial group was Irish, and the Irish and Scottish together outnumbered the English by almost two to one. After 1881 the English predominated and the Scottish moved to second place after 1911. By the time of the 1941 Census, the numerical strength of the principal racial stocks was in the following order: French, English, Scottish, Irish, German, Ukrainian, Scandinavian, Netherlandish, Jewish and Polish. Canada is officially bilingual, and the 1941 Census revealed 1,474,000 people speaking both official languages, while 7,735,000 spoke English only and 2,182,000 spoke French only.

The sex distribution of the Canadian people is characterized, as is that of any 'young' population, by a preponderance of males, although this condition has been greatly modified in recent times, especially since the rigid control of immigration following the First World War. From 1871 to 1941, for Canada as a whole, the percentage of males never dropped below 51 p.c. of the total population, whereas for Western Canada it varied between 53 p.c. and 59 p.c.

### *Population Statistics*

The following tables give a picture of the Canadian population from various angles at the time of the 1941 Census; Prairie Province figures for the quinquennial census years 1906-46 are also included. In the space available in this publication, the subject of population can be dealt with only very summarily. Since the 1941 Census does not reflect current conditions in post-war Canada, estimates of the population for 1938-47 are given at p. 45.

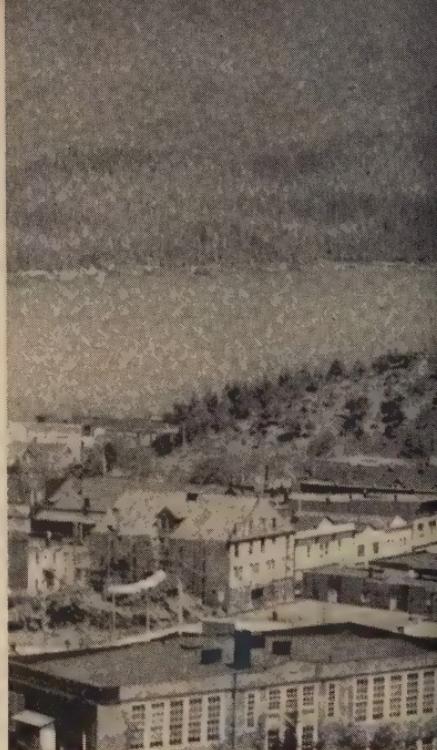
#### *Population of Canada, Census Years 1891-1941, with Density, 1941*

NOTE.—The figures for certain censuses are not altogether comparable but the qualifications are for the most part technical and are given in detail in the Census volumes.

Province or Terri- tory	Land Area in Sq. Miles	Population						Persons per Sq. Mile 1941
		1891	1901	1911	1921	1931	1941	
P.E.I....	2,184	109,078	103,259	93,728	88,615	88,038	95,047	43·52
N.S....	20,743	450,396	459,574	492,338	523,837	512,846	577,962	27·86
N.B....	27,473	321,263	331,120	351,889	387,876	408,219	457,401	16·65
Que....	523,860	1,488,535	1,648,898	2,005,776	2,360,510	2,874,662	3,331,882	6·36
Ont....	363,282	2,114,321	2,182,947	2,527,292	2,933,662	3,431,683	3,787,655	10·43
Man....	219,723	152,506	255,211	461,394	610,118	700,139	729,744	3·32
Sask....	237,975	—	91,279	492,432	757,510	921,785	895,992	3·77
Alta....	248,800	—	73,022	374,295	588,454	731,605	796,169	3·20
B.C....	359,279	98,173	178,657	392,480	524,582	694,263	817,861	2·28
Yukon..	205,346	—	27,219	8,512	4,157	4,230	4,914	0·02
N.W.T....	1,253,438	98,967	20,129	6,507	8,143	9,316	12,028	0·01
<b>Canada</b>	<b>3,462,103</b>	<b>4,833,239</b>	<b>5,371,315</b>	<b>7,206,643</b>	<b>8,787,949</b>	<b>10,376,786</b>	<b>11,506,655</b>	<b>3·32</b>

<sup>1</sup> Includes 485 members of the Royal Canadian Navy who were recorded separately.

- Prince Rupert, B.C., about 550 miles north of Vancouver. The population of this city, which was about 7,000 at the time of the 1941 Census, has since grown rapidly. It is situated on an excellent harbour, has splendid warehouse, cold-storage and harbour facilities, and is an important centre of the great halibut and salmon fishing industry of the Pacific. At present a \$15,000,000 cellulose plant is under construction, scheduled to be completed within two years.



**Population of the Prairie Provinces, Quinquennial Census Years  
1906-46**

Province	1906	1916	1926	1936	1946
Manitoba.....	365,688	553,860	639,056	711,216	726,923
Saskatchewan.....	257,763	647,835	820,738	931,547	832,688
Alberta.....	185,195	496,442	607,599	772,782	803,330
<b>Totals.....</b>	<b>808,646</b>	<b>1,698,137</b>	<b>2,067,393</b>	<b>2,415,545</b>	<b>2,362,941</b>

**Rural Farm, Rural Non-farm and Urban Population, by Provinces,  
1931 and 1941**

Province or Territory	1931			1941		
	Rural		Urban	Rural		Urban
	Farm	Non-farm		Farm	Non-farm	
P.E.I.....	54,963	12,690	20,385	50,732	19,975	24,340
N.S.....	173,965	107,227	231,654	141,182	169,240	267,540
N.B.....	178,494	100,785	128,940	163,067	150,911	143,423
Que.....	743,598	317,458	1,813,606	823,791	398,407	2,109,684
Ont.....	785,550	550,141	2,095,992	694,684	754,338	2,338,633
Man.....	254,302	129,868	315,969	248,684	159,187	321,873
Sask.....	561,407	69,473	290,905	513,279	87,567	295,146
Alta.....	370,899	82,198	278,508	380,693	108,890	306,586
B.C.....	100,244	199,280	394,739	100,810	273,657	443,394
Yukon.....	74	2,796	1,360	42	3,075	1,797
N.W.T.....	Nil	9,316	Nil	Nil	12,028	Nil
<b>Canada....</b>	<b>3,223,496</b>	<b>1,581,232</b>	<b>5,572,058</b>	<b>3,116,964</b>	<b>2,137,275</b>	<b>6,252,416</b>



**Urban Centres Having over 20,000 Inhabitants in 1941, Census Years  
1901-41**

Urban Centre and Province	Population				
	1901	1911	1921	1931	1941
Montreal, Que. 	325,653	490,504	618,506	818,577	903,007
Greater Montreal	—	—	—	1,023,158	1,139,921
Toronto, Ont.	218,504	381,833	521,893	631,207	667,457
Greater Toronto	—	—	—	810,467	900,491
Vancouver, B.C.	29,432	120,847	163,220	246,593	275,353
Greater Vancouver	—	—	—	308,340	351,491
Winnipeg, Man.	42,340	136,035	179,087	218,785	221,960
Greater Winnipeg	—	—	—	284,295	290,540
Hamilton, Ont.	52,634	81,969	114,151	155,547	166,337
Greater Hamilton	—	—	—	163,710	176,110
Ottawa, Ont.	64,226	87,062	107,843	126,872	154,951
Greater Ottawa	—	—	—	175,988	215,022
Quebec, Que.	68,840	78,118	95,193	130,594	150,757
Greater Quebec	—	—	—	172,517	200,814
Windsor, Ont.	15,198	23,433	55,935	98,179	105,311
Greater Windsor	—	—	—	110,385	121,112
Edmonton, Alta.	4,176	31,064	58,821	79,197	93,817
Calgary, Alta.	4,392	43,704	63,305	83,761	88,904
London, Ont.	37,976	46,300	60,959	71,148	78,264
Greater London	—	—	—	—	86,740
Halifax, N.S.	40,832	46,619	58,372	59,275	70,488
Greater Halifax	—	—	—	74,161	91,829
Verdun, Que.	1,898	11,629	25,001	60,745	67,349
Regina, Sask.	2,249	30,213	34,432	53,209	58,245
Saint John, N.B.	40,711	42,511	47,166	47,514	51,741
Greater Saint John	—	—	—	58,717	65,784
Victoria, B.C.	20,919	31,660	38,727	39,082	44,068
Greater Victoria	—	—	—	—	75,218
Saskatoon, Sask.	113	12,004	25,739	43,291	43,027
Three Rivers, Que.	9,981	13,691	22,367	35,450	42,007
Sherbrooke, Que.	11,765	16,405	23,515	28,933	35,965
Kitchener, Ont.	9,747	15,196	21,763	30,793	35,657
Hull, Que.	13,993	18,222	24,117	29,433	32,947
Sudbury, Ont.	2,027	4,150	8,621	18,518	32,203

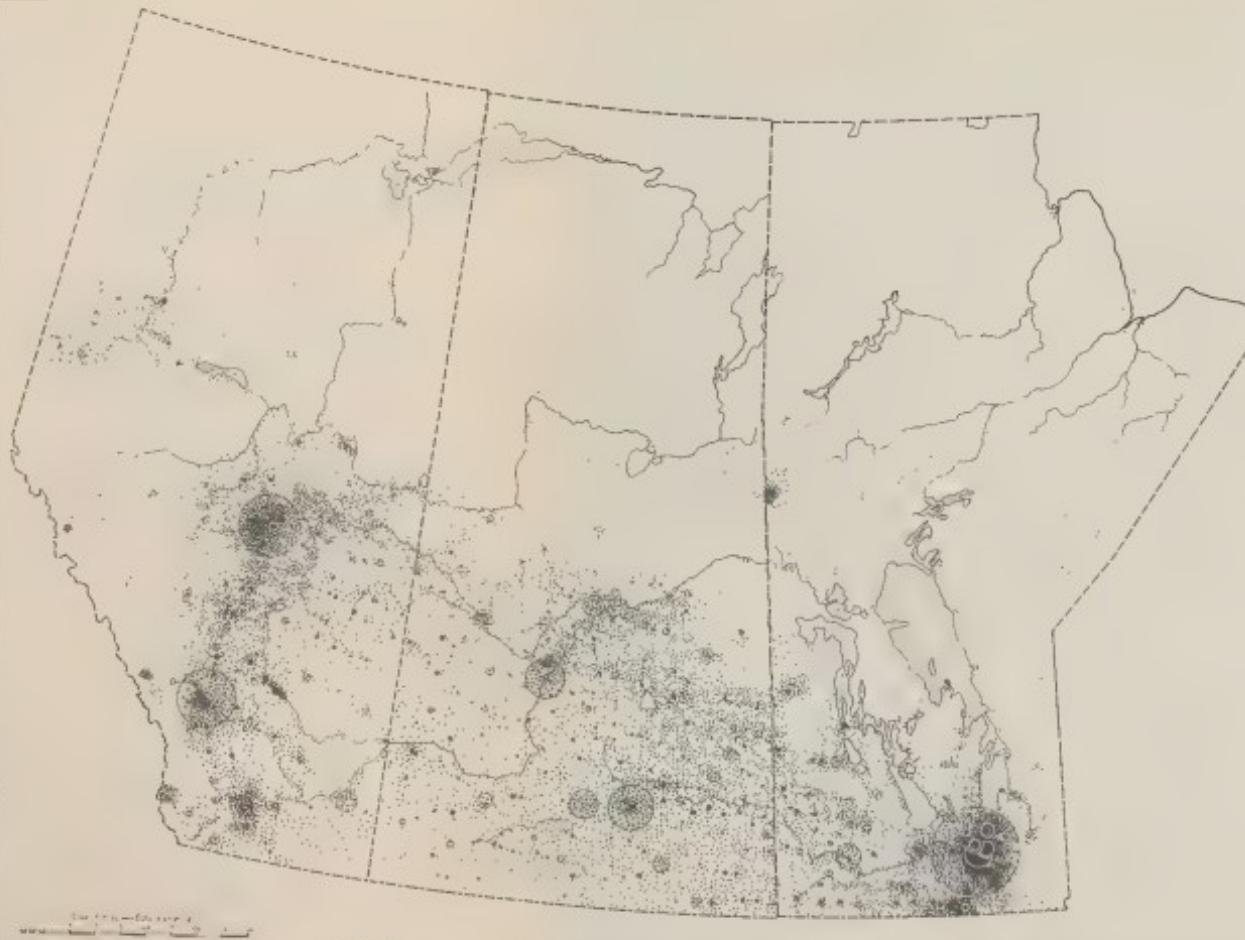
*Urban Centres Having over 20,000 Inhabitants in 1941, Census Years  
1901-41—concluded*

Urban Centre and Province	Population				
	1901	1911	1921	1931	1941
Brantford, Ont.	16,619	23,132	29,440	30,107	31,948
Outremont, Que.	1,148	4,820	13,249	28,641	30,751
Fort William, Ont.	3,633	16,499	20,541	26,277	30,585
St. Catharines, Ont.	9,946	12,484	19,881	24,753	30,275
Kingston, Ont.	17,961	18,874	21,753	23,439	30,126
Timmins, Ont.	—	—	3,843	14,200	28,790
Sydney, N.S.	9,909	17,723	22,545	23,089	28,305
Oshawa, Ont.	4,394	7,436	11,940	23,439	26,813
Westmount, Que.	8,856	14,579	17,593	24,235	26,047
Sault Ste. Marie, Ont.	7,169	14,920	21,092	23,082	25,794
Peterborough, Ont.	12,886	18,360	20,994	22,327	25,350
Glace Bay, N.S.	6,945	16,562	17,007	20,706	25,147
Port Arthur, Ont.	3,214	11,220	14,886	19,818	24,426
Guelph, Ont.	11,496	15,175	18,128	21,075	23,273
Moncton, N.B.	9,026	11,345	17,488	20,689	22,763
New Westminster, B.C.	6,499	13,199	14,495	17,524	21,967
Moose Jaw, Sask.	1,558	13,823	19,285	21,299	20,753
Niagara Falls, Ont.	5,702	9,248	14,764	19,046	20,589
Shawinigan Falls, Que.	—	4,265	10,625	15,345	20,325
Lachine, Que.	6,365	11,688	15,404	18,630	20,051

*Conjugal Condition of the Population, by Provinces and Sex, 1941*

Province or Territory	Single	Married	Widowed	Divorced	Permanently Separated	Total <sup>1</sup>
MALES						
Prince Edward Island	29,828	17,625	1,549	22	202	49,228
Nova Scotia	173,506	111,132	9,359	247	1,770	296,044
New Brunswick	140,952	85,093	6,695	197	1,137	234,097
Quebec	1,027,162	591,533	46,386	500	7,270	1,672,982
Ontario	993,265	851,096	60,210	2,291	14,105	1,921,201
Manitoba	209,939	155,157	10,268	473	2,218	378,079
Saskatchewan	283,297	179,996	11,383	468	2,351	477,563
Alberta	243,666	168,469	10,594	801	2,891	426,458
British Columbia	215,205	200,027	13,979	1,547	4,213	435,031
Yukon	2,029	957	116	17	34	3,153
Northwest Territories	3,978	2,443	204	6	10	6,700
Canada	3,322,827	2,363,528	170,743	6,569	36,201	5,900,536
FEMALES						
Prince Edward Island	24,748	17,473	3,401	19	178	45,819
Nova Scotia	148,474	109,513	21,544	268	2,115	281,918
New Brunswick	123,540	84,275	14,040	192	1,256	223,304
Quebec	981,890	581,569	85,425	646	9,353	1,658,900
Ontario	876,215	826,525	142,731	2,865	18,039	1,866,454
Manitoba	176,458	151,105	20,625	654	2,818	351,665
Saskatchewan	221,557	175,112	18,965	381	2,414	418,429
Alberta	186,215	161,953	17,963	717	2,850	369,711
British Columbia	165,064	181,932	29,235	1,718	4,878	382,830
Yukon	833	810	88	3	27	1,761
Northwest Territories	2,747	2,211	361	Nil	8	5,328
Canada	2,907,741	2,292,478	354,378	7,463	43,936	5,606,119

<sup>1</sup> Includes persons with conjugal condition not stated.



## DISTRIBUTION OF POPULATION, PRAIRIE PROVINCES, 1946

DISTRIBUTION DE LA POPULATION,  
PROVINCES DES PRAIRIES, 1946

NOTE

A dot represents 100 people.  
most populations of more than  
proportional to area to the size  
by concentration of dots.

Choses, villes et villages  
100 personnes sont représentées par un point.  
Les plus grandes populations sont proportionnelles  
à la surface et à la densité de population.  
Les points sont placés de manière à indiquer  
la densité de population.

NOT

Un peu plus de 100 personnes. Les crus, villes et villages d'une population de plus de 1.000 sont indiqués par des étoiles dont la surface ne proportionnelle au passé. Les autres noms curieusement sont indiqués par des cercles sans de points.

UNGND - LEGENDE

Scale for Typical Urban Centers in Dens

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*Distribution of Population by Sex and Age Groups, by Provinces, 1941*

Age Group	Prince Edward Island		Nova Scotia		New Brunswick		Quebec	
	Males	Females	Males	Females	Males	Females	Males	Females
Under 10 years	9,745	9,438	57,621	55,833	49,513	48,457	354,186	347,189
10-19 "	9,512	9,162	56,643	55,164	48,636	47,629	357,840	354,791
20-29 "	8,412	7,291	53,883	50,947	40,972	37,625	287,888	298,408
30-39 "	6,099	5,063	39,338	34,835	29,162	27,092	232,719	231,371
40-49 "	5,047	4,701	29,921	28,639	22,939	22,148	175,562	169,859
50-59 "	4,156	4,007	24,912	23,452	18,952	17,529	131,186	123,202
60-69 "	3,302	3,156	19,339	17,536	13,970	12,564	83,316	79,569
70 or over.	2,955	3,001	14,387	15,512	9,953	10,260	50,285	54,511
All Ages..	49,228	45,819	296,044	281,918	234,097	223,304	1,672,982	1,658,900
	Ontario		Manitoba		Saskatchewan		Alberta	
	Males	Females	Males	Females	Males	Females	Males	Females
Under 10 years	304,406	295,033	63,006	60,877	87,995	85,191	76,400	74,349
10-19 "	336,738	327,182	70,770	69,719	97,088	93,811	78,533	77,528
20-29 "	323,502	316,193	67,150	66,315	81,528	76,007	71,208	67,926
30-39 "	284,697	270,187	51,203	48,560	59,909	52,524	59,885	50,272
40-49 "	247,696	235,242	43,109	40,015	51,424	43,146	50,550	39,371
50-59 "	204,055	191,773	42,648	33,929	53,930	36,333	48,926	32,312
60-69 "	132,989	132,979	26,007	19,824	31,119	20,083	28,008	18,163
70 or over.	87,118	97,865	14,186	12,426	14,570	11,334	12,948	9,790
All Ages..	1,921,201	1,866,454	378,079	351,665	477,563	418,429	426,458	369,711
	British Columbia		Yukon		Northwest Territories		Canada	
	Males	Females	Males	Females	Males	Females	Males	Females
Under 10 years	58,087	56,340	428	439	1,608	1,533	1,062,995	1,034,679
10-19 "	64,307	63,019	311	290	1,138	1,101	1,121,516	1,099,396
20-29 "	69,998	71,151	538	365	1,217	892	1,006,296	993,120
30-39 "	63,305	54,489	582	244	1,145	719	828,044	775,356
40-49 "	53,799	46,806	336	158	736	487	681,119	630,572
50-59 "	61,532	44,524	314	129	489	306	591,100	507,496
60-69 "	42,385	29,640	358	94	281	193	381,074	333,801
70 or over.	21,618	16,861	286	42	86	97	228,392	231,699
All Ages..	435,031	382,830	3,153	1,761	6,700	5,328	5,900,536	5,606,119

*Buildings, Dwellings, Households and Families, by Provinces, 1941*

Province	Buildings	Dwellings		House-holds	Families	Persons per—		
		Occupied	Vacant			Dwelling	Household	Fam- ily
P.E.I.....	19,719	20,236	753	20,432	19,590	4.70	4.65	4.19
N.S.....	114,451	124,396	3,840	128,641	123,561	4.65	4.49	4.04
N.B.....	83,429	92,703	2,922	94,599	93,479	4.93	4.84	4.32
Que.....	436,012	650,838	14,321	663,426	647,946	5.12	5.02	4.53
Ont.....	779,751	916,122	21,464	969,267	909,210	4.13	3.91	3.56
Man.....	149,206	164,985	2,342	176,942	166,249	4.42	4.12	3.83
Sask.....	206,291	209,820	6,465	214,939	190,137	4.27	4.17	4.13
Alta.....	185,585	195,574	4,040	201,796	175,744	4.07	3.95	3.91
B.C.....	207,120	223,295	5,861	236,047	199,383	3.66	3.46	3.36
Canada...	2,181,564	2,597,969	62,008	2,706,089	2,525,299	4.42	4.25	3.94

**Gainfully Occupied Males and Females, 14 Years of Age or Over,  
by Occupation Groups, 1941**

(Exclusive of Yukon and the Northwest Territories)

Occupation Group	Males			Females	
	Including Active Service <sup>1</sup>	Not Including Active Service	P.C. of Total <sup>2</sup>	No.	P.C. of Total
Agriculture.....	1,104,579	1,064,847	31.7	18,969	2.3
Fishing, trapping and logging.....	138,460	131,374	3.9	326	.3
Mining, quarrying.....	77,909	71,861	2.1	25	.3
Manufacturing.....	615,284	573,574	17.1	129,588	15.6
Construction.....	215,333	202,509	6.0	339	.3
Transportation.....	278,402	254,591	7.6	14,065	1.7
Trade.....	292,910	273,059	8.1	82,020	9.8
Finance, insurance.....	33,104	30,576	0.9	816	0.1
Service.....	339,307	316,313	9.4	418,111	50.2
Clerical.....	204,666	182,823	5.4	155,208	18.6
Labourers <sup>4</sup> .....	273,925	251,889	7.5	11,655	1.4
Not stated.....	39,166	9,695	0.3	1,718	0.2
All Occupations.....	3,613,045	3,363,111	100.0	832,840	100.0

<sup>1</sup> Includes only males on Active Service with a gainful occupation prior to enlistment.  
<sup>2</sup> Based on column 2.      <sup>3</sup> Less than 0.05 p.c.      <sup>4</sup> Does not include agricultural, fishing, logging or mining labourers.

**Nine Leading Origins, by Provinces, 1941**

Province	British Isles Races	French	German	Ukrainian	Scandinavian	Netherlandish	Jewish	Polish	Indian
P.E.I.....	78,714	14,799	172	2	152	494	25	1	258
N.S.....	445,178	66,260	15,038	711	2,353	23,834	2,285	2,206	2,063
N.B.....	276,758	163,934	1,394	22	2,929	4,539	1,228	233	1,939
Que.....	452,887	2,695,032	8,880	8,006	4,840	2,645	66,277	10,036	11,863
Ont.....	2,729,830	373,990	167,102	48,158	27,225	73,001	69,875	54,893	30,336
Man.....	360,560	52,996	41,479	89,762	32,620	39,204	18,879	36,550	15,473
Sask.....	397,905	50,530	130,258	79,777	68,806	35,894	4,149	27,902	13,384
Alta.....	399,432	42,979	77,721	71,868	63,494	20,429	4,164	26,845	12,565
B.C.....	571,336	21,876	22,407	7,563	41,560	12,737	3,350	8,744	24,875
Canada <sup>1</sup> .....	5,715,904	3,483,038	464,682	305,929	244,603 <sup>2</sup>	212,863	170,241	167,485	118,316

<sup>1</sup> Includes Yukon and the Northwest Territories.  
Icelandic, 100,718 Norwegian and 85,396 Swedish.

<sup>2</sup> Includes 37,439 Danish, 21,050

**Birthplaces of the Population, Census Years 1901-41**

Year	Canadian Born		Other British Born <sup>1</sup>		Foreign Born				Total Population
					U.S. Born		Other		
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.
1901.....	4,671,815	86.98	421,051	7.84	127,899	2.38	150,550	2.80	5,371,315
1911.....	5,619,682	77.98	834,229	11.58	303,680	4.21	449,052	6.23	7,206,643
1921.....	6,832,224	77.75	1,065,448	12.12	374,022	4.26	516,255	5.87	8,787,949
1931.....	8,069,261	77.76	1,184,830	11.42	344,574	3.32	778,121	7.50	10,376,786
1941.....	9,487,808	82.46	1,003,769	8.72	312,473	2.72	701,660	6.10	11,506,655 <sup>2</sup>

<sup>1</sup> Includes some hundreds of persons born at sea.  
not stated.

<sup>2</sup> Includes persons with birthplace

## Eight Leading Religious Denominations, by Provinces, 1941

Province or Territory	Roman Catholic <sup>1</sup>	United Church of Canada	Anglican	Presbyterian	Baptist	Lutheran	Jewish	Greek Orthodox
P.E.I. ....	42,743	24,005	5,739	14,724	5,443	45	18	10
N.S. ....	188,944	124,301	103,393	47,415	89,272	9,104	2,167	347
N.B. ....	220,454	63,268	55,155	15,382	88,766	870	1,196	85
Que. ....	2,894,621	100,196	162,056	56,086	12,303	7,081	65,683	12,040
Ont. ....	882,369	1,073,425	815,413	433,708	192,915	104,111	69,217	28,383
Man. ....	203,259	194,001	125,076	43,073	13,267	48,213	18,715	20,777
Sask. ....	243,734	230,495	117,674	54,856	19,460	104,717	4,076	37,699
Alta. ....	191,343	193,664	113,279	68,910	32,268	84,630	4,052	34,991
B.C. ....	113,282	200,817	245,531	94,300	29,780	41,772	3,235	5,198
Yukon....	742	404	2,545	422	75	368	2	67
N.W.T....	5,061	299	5,327	271	43	242	6	32
<b>Canada..</b>	<b>4,986,552</b>	<b>2,204,875</b>	<b>1,751,188</b>	<b>829,147</b>	<b>483,592</b>	<b>401,153</b>	<b>168,367</b>	<b>139,629</b>

<sup>1</sup> Includes Greek Catholic.

**Annual Estimates of Population.**—The exact number of the population of Canada given at ten-year intervals by the Census is supplemented by estimates for intervening years. These are essential for the calculation of per capita figures in production and trade, and particularly for use as a base in birth and death comparisons. At every census the previous post-censal data are adjusted to the newly recorded population figures.

## Estimates of the Population, by Provinces, Intercensal Years 1938-47

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
1938 ...	94	555	442	3,183	3,672	720	914	781	775	16	11,152
1939 ...	94	561	447	3,230	3,708	726	906	786	792	17	11,267
1940 ...	95	569	452	3,278	3,747	728	900	790	805	17	11,381
1941 ...	95	578	457	3,332	3,788	730	896	796	818	17	11,507
1942 <sup>1</sup> ...	90	591	464	3,390	3,884	724	848	776	870	17	11,654
1943 <sup>1</sup> ...	91	607	463	3,457	3,917	726	842	792	900	17	11,812
1944 <sup>1</sup> ...	91	612	462	3,500	3,965	732	846	818	932	17	11,975
1945 <sup>1</sup> ...	92	621	468	3,561	4,004	736	845	826	949	17	12,119
1946 <sup>1</sup> ...	94	612	480	3,630	4,101	727	833	803	1,003	24	12,307
1947 <sup>1</sup> ...	94	621	491	3,712	4,189	743	842	822	1,044	24	12,582

<sup>1</sup> These estimates are subject to adjustment as later data are made available.

## Aboriginal Races

**Indians.**—The Indians of Canada, whose affairs are administered by the Indian Affairs Branch of the Department of Mines and Resources, number 125,686 (according to a departmental census taken in 1944). The popular opinion that the race is disappearing is not in accordance with fact. Before the advent of the European, the number of Indians was undoubtedly larger, though there is little reliable information on the subject. The trend during this twentieth century, however, has been fairly steadily upward. The distribution among the provinces and territories is as follows: Prince Edward



An Indian woman hanging meat to dry in the fashion of her ancestors. The native Indians of Canada live for the most part on reserves set aside for them by the Federal Government, and in many cases are little influenced by the modern customs of the White population.

Island, 266; Nova Scotia, 2,364; New Brunswick, 2,047; Quebec, 15,194; Ontario, 32,421; Manitoba, 15,933; Saskatchewan, 14,158; Alberta, 12,441; British Columbia, 25,515; Yukon, 1,531; and the Northwest Territories, 3,816. These are the Indians under Federal administration. There are many others who, under the provisions of the Indian Act, have become enfranchised and have acquired full status of citizenship; these have ceased to be Indians under the law.

The rapid spread of civilization in Canada made it necessary to take effective measures to protect the moral claims of the Indians. As the various sections of the country were opened up, treaties were entered into whereby the Indians ceded to the Crown their aboriginal title and interest in the country, in lieu of which the Crown agreed to set aside adequate land reserves, to make cash grants, provide per capita annuities, give assistance in agriculture, stock-raising, hunting, trapping, etc., as particular circumstances might require, provide education for Indian children, and otherwise safeguard the interests of the Indian population. Accordingly, reserves have been set aside for the various bands of Indians throughout the Dominion and the Indians located thereon are under the supervision of local agents of the Department of Mines and Resources. In addition to the agent, the local staff usually includes a medical officer, clerk, farming instructor, field matron, constable, stockman, etc., according to the special requirements of the agency.

The total area of Indian reserves was 5,464,503 acres as at Mar. 31, 1945, 25.7 p.c. of which was in Alberta, 23.9 p.c. in Ontario and 21.8 p.c. in Saskatchewan. Of the total, only 187,457 acres were under cultivation, 3,369,869 acres being uncleared.

The Government has undertaken a number of special projects for the various sections of the Indian population in accordance with their needs, including fur development enterprises in selected areas, the promotion of handicraft, and planned agricultural operations.

While the Department of Mines and Resources acts as the administrator of the affairs of the Indians, all matters connected with their health are

under the jurisdiction of the Department of National Health and Welfare. The distribution of family allowances is conducted jointly by the two Departments.

In 1946, the Federal Government, realizing the importance of reviewing the Indian Act, set up a Special Joint Committee of the Senate and the House of Commons to examine and consider the Indian Act. This inquiry is still (October, 1947) continuing. The Indian Act is to be redesigned in keeping with needs and conditions facing the Indian population of Canada to-day.

**Eskimos.**—Eskimos in Canada are found principally north of the tree-line on the northern fringe of the mainland and around the coasts of many of the islands in the Arctic Archipelago and in Hudson Bay. Most of the Eskimo are essentially coastal dwellers, obtaining much of their food and clothing from the mammals of the sea. However, there are bands of Eskimo living in the interior of Keewatin District on the west side of Hudson Bay who are inland people, and who subsist chiefly on caribou.

The administrative care of the Eskimo, exclusive of medical services, devolves upon the Lands, Parks and Forests Branch of the Department of Mines and Resources, which, by regulative measures, conserves the natural resources necessary to their subsistence. Medical care and hospitalization is a function of the Department of National Health and Welfare.

Contact with the Eskimo is maintained through permanent stations at a number of which medical officers are located—in the eastern, central and western Arctic; by patrols of the Royal Canadian Mounted Police; by radio-communication; by means of the annual Canadian Eastern Arctic Patrol by steamship; and by auxiliary motor vessels.

The 1941 Decennial Census of Canada established the Eskimo population at 7,205, of which 5,404 were located in the Northwest Territories, 1,778 in northern Quebec, and the remainder, 23, in other provinces. Delayed returns received too late for inclusion in the Census, would raise the 1941 Eskimo population to a total of 7,639, of which 1,965 were located in northern Quebec.

An Eskimo family in their igloo at Baker Lake, Chest-  
erfield Inlet on Hudson Bay. The man is working on a snow knife while his wife makes caribou moccasins. Their grandson sits in to enjoy the gramophone music, for the radio, gramophone and other innovations of the White man have penetrated even to the igloo of the far north.



During the year ended Mar. 31, 1947, a total of 66,990 immigrants entered Canada, this figure showing a 115.5 p.c. increase over the 31,081 immigrants received during the fiscal year 1945-46, and a marked rise over the 1944-45 total of 15,306.

Of the 66,990 immigrants, 47,976 were English, Scottish, Irish and Welsh from overseas, as compared with 20,162 and 9,943 in 1945-46 and 1944-45, respectively; 11,410 were from the United States, as compared with 7,454 and 4,624, respectively; and 7,604 were from other countries, as compared with 3,465 and 739, respectively. Canadians returning from the United States after residing in that country numbered 6,315, as compared with 2,895 in 1945-46.

The most notable development of Canada's immigration policy during 1947 was the admission of the first displaced persons from refugee camps in Europe. Special Orders in Council authorized the entry to Canada in group movements of 20,000 displaced persons in response to requests for workers received from industries throughout the Dominion. All of these 20,000 people are expected to reach Canada by the spring of 1948. In addition, there was a broadening of the categories under which relatives of Canadian citizens, whether or not they were displaced persons, could secure admission to this country.

By Oct. 31, 1947, 4,679 displaced persons had reached Canada. Of these, 3,007 went to lumber companies, 100 were given jobs in textile mills, and 426 were assigned to domestic duties in hospitals and other service institutions; 1,102 displaced persons were admitted under the Close Relatives Plan; and 44 children were placed in private homes. Of the approximately 21,000 applications for admission made under the Close Relatives Plan, more than 11,000 had been investigated and approved. At the same date, applications for the entry of 15,021 workers under the Group Movement Plan had been approved. These workers included the following: hydro workers, 2,000; miners, 2,301; railroad workers, 705; woods workers, 4,210; foundrymen, 114; steel workers, 375; construction workers, 500; domestics, 2,000; clothing workers, 2,316; dressmakers, 200; terrazo workers, 100; textile workers, 200.

Included among immigrants from the British Isles are those being brought to this country by air through the Ontario Government plan which has an objective of 7,000 new residents for that Province.

Some 4,527 Polish ex-service men were admitted to Canada to furnish immediate relief to farmers urgently requiring help. At the end of two years' employment at prevailing rates, consideration will be given to granting them permanent admission.

Approximately 3,000 Dutch agriculturists, including married people and their families as well as single men, have also been admitted.

Figures for tourists who, although not immigrants, submit to immigration examination at the International Boundary and ocean ports, showed a total entry (in round figures) of 34,693,300 people, made up of 20,622,000 visitors from other countries, 14,065,000 Canadians returning from trips to other countries, and 6,300 Canadians returning after residing in the United States. Comparable figures for the previous year were 17,827,000 visitors, 11,091,000 returning residents, and 3,000 returned Canadians.

## NEW CANADIANS

This Dutch family, arriving at Montreal, will settle on a farm near Edmonton, Alta.



Immigrants from the United Kingdom arriving in Canada under the sponsorship of the Ontario Government immigration scheme. These new citizens travel by air at their own expense.



Displaced persons from Germany brought to Canada by the Federal Government to work in the lumber industry.



# Vital Statistics Public Health

## ★ Vital Statistics

No nation can afford to neglect the study of its vital statistics if the health of its citizens is to be maintained at a high level. Both Federal and Provincial Governments are fully alive to the dependence of the one upon the other and since 1926 they have collaborated in the compilation of statistics on which they base their joint efforts to offset any abnormally high incidence of disease. The one is a function of the Dominion Bureau of Statistics and the Provincial Registration Officials, the other of the Health Departments at Ottawa and the provincial capitals.

**National Vital Statistics Index.**—A Dominion-Provincial Conference on Vital Statistics in September, 1944, decided that the Dominion and the provinces would collaborate in the creation of a National Vital Statistics Index for Canada. This index is being used collectively by the several governments. Modern mechanical methods of microfilm and punch-card equipment are being synchronized. The former permits the rapid transmission to the Dominion Bureau of Statistics of photographic copies of the events registered in the provincial vital statistics offices. In setting up the National Index and for the analysis of the statistical facts, mechanical tabulation processes are being applied to the material on a uniform basis at the Bureau.

**Vital Statistics Council.**—A Vital Statistics Council for Canada was established by Order in Council dated July 31, 1945, to facilitate co-operation between Dominion and Provincial Governments with respect to the use of



The important subject of nutrition has a place in the school curriculum in Canada.

vital records and statistics, and to ensure the creation and maintenance of a system that is adequate to meet increasing demands both for Dominion and provincial purposes. The Dominion Statistician is the Chairman, and the Council comprises one representative for each province, one for Yukon and the Northwest Territories, and the Chiefs of Vital Statistics and Census Divisions in the Dominion Bureau of Statistics.

### *Births, Deaths and Marriages, by Provinces*

Province	Births			Deaths			Marriages		
	1946 <sup>1</sup>		Av. 1926- 30	1946 <sup>1</sup>		Av. 1926- 30	1946 <sup>1</sup>		Av. 1926- 30
	No.	Rate per M		No.	Rate per M		No.	Rate per M	
P.E.I.....	2,815	29.9	19.7	876	9.3	11.0	837	8.9	5.4
N.S.....	17,885	29.2	21.4	6,008	9.8	12.4	6,549	10.7	6.3
N.B.....	16,258	33.9	25.8	4,854	10.1	12.5	5,866	12.2	7.4
Que.....	110,809	30.5	30.5	33,573	9.2	13.5	36,671	10.1	6.9
Ont.....	93,809	22.8	21.0	38,592	9.4	11.2	46,052	11.2	7.8
Man.....	18,881	26.0	21.7	6,526	9.0	8.3	8,594	11.8	7.5
Sask.....	20,699	24.9	24.7	6,417	7.7	7.3	8,279	10.0	7.0
Alta.....	22,161	27.7	24.2	6,582	8.2	8.4	9,478	11.8	8.0
B.C.....	22,488	22.4	16.2	10,091	10.1	9.3	11,752	11.7	7.5
<b>Canada<sup>2</sup>.....</b>	<b>325,805</b>	<b>26.5</b>	<b>24.1</b>	<b>113,519</b>	<b>9.2</b>	<b>11.1</b>	<b>134,078</b>	<b>10.9</b>	<b>7.3</b>

<sup>1</sup> Preliminary figures.

<sup>2</sup> Exclusive of Yukon and the Northwest Territories.

**Births.**—From 1926 to 1930 the number of births showed an upward trend, rising from 232,750 to 243,495. This movement was then reversed until 1937 when the number of births reached its lowest point at 220,235. In 1938 it increased again and in 1939 was 229,468. Because of the growing population, the rate of births per 1,000 population showed a steeper decline, falling from 23.9 in 1930 to 20.0 in 1937. In 1938 it rose slightly to 20.6 and in 1939 it was 20.4. The influence of the War is reflected in the sharp increase that has taken place since 1939. In 1941 the number of births was 255,224 and the rate 22.2. The preliminary figures for 1946 show 325,805 births and a rate of 26.5; this is the highest birth rate recorded since 1926.

Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that a proper ratio of male to female births has become one of the criteria of complete registration. The number of males to every 1,000 females born in Canada in 1941-45 has varied between 1,057 and 1,067.

Hospitalization and medical attendance at birth have increased greatly in recent years. In 1926-30 only 22 p.c. of live births occurred in hospitals, while in 1945 the proportion was 63 p.c.

**Deaths.**—The annual death rate in Canada averages less than 10 per 1,000 population, which is fairly low in comparison with other countries of the world.

The ten leading causes of death accounted for 80 p.c. of the total deaths in Canada in 1945. Diseases of the heart, considered as a group, was the most important cause; cancer was second. The death rate from cancer has

advanced almost every year from 1926 to 1945, the increase in that period being from 80·7 to 119·3 per 100,000 population. This increase in cancer deaths is rather misleading, being due in part to improvement in diagnostic and X-ray techniques which enable the causes of death to be identified, instead of being attributed to other or unknown causes, but mainly to the aging of the Canadian population. Pneumonia, which was in third place in 1926 with a rate of 89·3 per 100,000 population, dropped in 1945 to seventh place with a rate of 45·9.

*Maternal Mortality.*—The average rate for the five-year period 1926-30 was 5·7 per 1,000 live births. Since that time there has been a marked improvement. The rate decreased to 4·0 in 1940 and reached the low figure of 1·8 in 1946.

*Infant Mortality.*—In Canada during recent years this rate has shown a substantial reduction, falling from 102 per 1,000 live births in 1926 to 60 in 1941 and 54 in 1942 and 1943. In 1946, the rate was 47 per 1,000, the lowest on record.

### Infant Deaths and Death Rates, by Provinces

Province	Infants under One Year					Rates per 1,000 Live Births				
	1926	1943	1944	1945	1946 <sup>1</sup>	1926	1943	1944	1945	1946 <sup>1</sup>
	123	98	102	102	97	70	45	45	45	34
P.E.I.....	882	898	838	823	821	80	58	54	53	46
N.S.....	1,095	886	1,035	966	1,061	106	68	77	71	65
Que.....	11,666	6,642	6,918	6,464	6,119	142	67	68	62	55
Ont.....	5,302	3,390	3,346	3,209	3,509	78	42	43	41	37
Man.....	1,122	909	786	781	883	77	55	49	48	47
Sask.....	1,681	873	858	824	1,005	81	47	47	44	49
Alta.....	1,233	810	889	862	941	85	42	46	43	42
B.C.....	588	711	767	792	845	58	38	40	42	38
<b>Canada<sup>2</sup>.....</b>	<b>23,692</b>	<b>15,217</b>	<b>15,539</b>	<b>14,823</b>	<b>15,281</b>	<b>102</b>	<b>54</b>	<b>55</b>	<b>51</b>	<b>47</b>

<sup>1</sup> Preliminary figures.

<sup>2</sup> Exclusive of Yukon and the Northwest Territories.

*Natural Increase.*—In 1926 the rate of natural increase was 13·3 per 1,000 population. During the early 1930's, when the birth rate was declining rapidly, the death rate was also declining, but more slowly. In 1939, the death rate was 9·7, and the rate of natural increase 10·7. Since the beginning of the War, the natural increase rate has, of course, risen substantially. It was 12·2 in 1941, 14·0 in 1943 and, according to the preliminary figures, it stood at 17·3 in 1946.

*Marriages.*—In 1929 marriages in Canada numbered 77,288. They had increased steadily since 1926. The depression exercised a marked influence on marriages and the marriage rate, causing a steep downward movement until 1932, when the number of marriages was 62,531. From 1933 to 1942 a fairly steady increase took place, so that in 1942 marriages numbered 127,372, and the rate per 1,000 population was 10·9. For the years 1943 to 1945 the numbers and rates were somewhat lower. During 1946, marriages numbered 134,078, the largest number ever recorded, and the rate was 10·9.

## ★ Public Health

The Federal Government has jurisdiction only respecting such public-health matters as are exclusively international, national and interprovincial, but it assists Provincial Departments of Health by conducting investigations and research into public-health problems and by co-operating with them in the preservation and improvement of public health. The Federal Government also makes grants to the provinces and to voluntary organizations engaged in public-health work. Treatment for ex-members of the Armed Forces is provided by the Department of Veterans Affairs in veterans services and public hospitals.

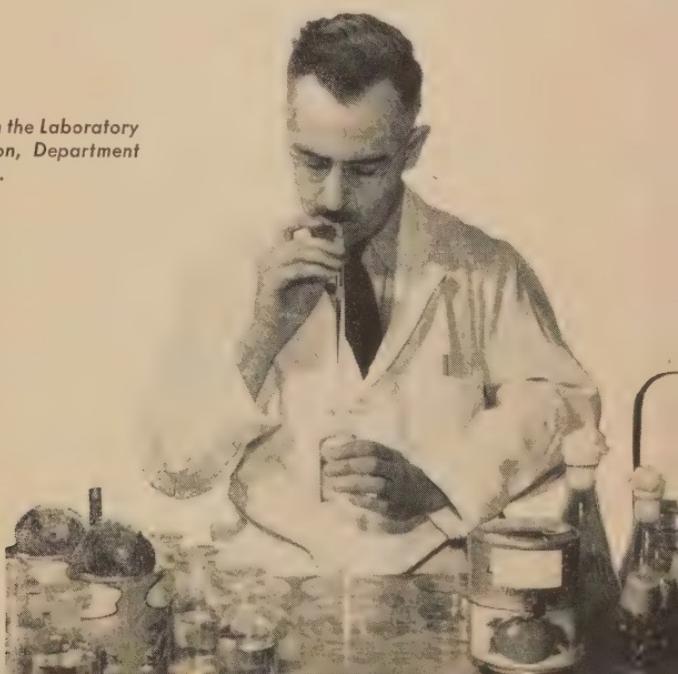
The Dominion Council of Health, created originally in 1919, is responsible for correlating and co-ordinating the activities of Provincial Departments of Health; it comprises the Deputy Minister of Health of each of the provinces as well as a representative from each of the groups of agriculture, labour, and urban and rural women. A scientific adviser on matters of public health is attached to the Council.

A tremendous amount of work in caring for the sick in their own homes, in the prevention of disease and in the education of the public in health improvement and first aid is carried on throughout Canada by such voluntary public-health agencies as the Victorian Order of Nurses for Canada, the Canadian Red Cross Society and the Order of St. John.

### *Statistics of Health Institutions*

The Dominion Bureau of Statistics collects, through its Census of Institutions, statistics concerning public and private hospitals, institutions for incurables, Dominion hospitals, tuberculosis sanatoria and mental institutions. The latest figures available are summarized in the following tables.

*Testing canned foods for spoilage in the Laboratory  
of Hygiene, Bacteriology Section, Department  
of National Health and Welfare.*



## Hospitals and Sanatoria, by Provinces, 1945

Type of Institution	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	N.W.T.	Canada
Hospitals.....	5	59	32	145	245	60	163	127	129	8	973
Public <sup>1</sup> .....	4	33	17	83	151	40	87	90	76	6	587
Incurable <sup>1</sup> .....	Nil	Nil	1	3	9	1	1	1	1	Nil	17
Private <sup>1</sup> .....	1	12	5	44	44	6	68	19	34	1	234
Dominion.....	Nil	14	9	15	41	13	7	17	18	1	135
Mental Institutions..	1	17	1	8	17	4	2	5	4	Nil	59
Tuberculosis Sanatoria <sup>2</sup> ...	1	10	3	30	15	9	4	5	7	"	84
<b>Totals....</b>	<b>7</b>	<b>86</b>	<b>36</b>	<b>183</b>	<b>277</b>	<b>73</b>	<b>169</b>	<b>137</b>	<b>140</b>	<b>8</b>	<b>1,116</b>

<sup>1</sup> Reporting units only.

<sup>2</sup> Includes 41 units in other hospitals.

## Summary Statistics of Reporting Public and Private Hospitals, 1941-45

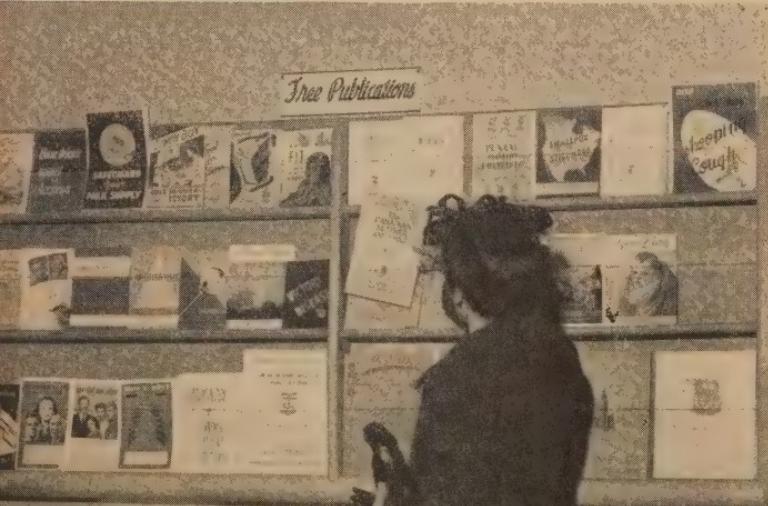
NOTE.—Figures include hospitals for incurables, but do not include Dominion hospitals, mental institutions or sanatoria for tuberculosis.

Item	1941	1942	1943	1944	1945
	No.	No.	No.	No.	No.
Public Hospitals— <sup>1</sup>					
Units reporting.....	612	614	613	601	604
Bed capacities <sup>2</sup> .....	59,733	60,205	61,041	62,195	62,619
Patients under treatment <sup>3</sup> .....	1,057,553	1,115,666	1,204,170	1,273,721	1,350,161
Total patient days.....	14,215,921	14,638,647	15,562,644	16,031,425	16,767,607
Private Hospitals—					
Units reporting.....	322	287	264	267	234
Bed capacities <sup>2</sup> .....	4,733	4,475	4,251	4,579	4,113
Patients under treatment <sup>3</sup> .....	47,361	48,225	52,045	53,224	50,977
Total patient days.....	789,468	811,156	857,332	905,614	929,991

<sup>1</sup> Includes hospitals for incurables.

<sup>2</sup> Includes bassinets.

<sup>3</sup> Includes newborn.



Health education is carried on through information services, community health projects, radio presentation, posters, exhibits, etc. Free literature may be had for the asking.

# Welfare Services Veterans Affairs

## ★ *Welfare Services*

THE necessity for rectifying economic and social mal-adjustment was anticipated during the War and in April, 1945, a White Paper was presented to Parliament. Social security was also among the subjects of discussion at the Dominion-Provincial Conference of 1945 and throughout the War there was constant planning for the day when Canadian service men and women would return to civilian life.

As a result of this groundwork, two new administrations, National Welfare (associated with Health as the Department of National Health and Welfare) and Veterans Affairs, were set up and now occupy important places in the over-all program for social and economic welfare.

The responsibility for social welfare in Canada rests traditionally on the provinces, which, in turn, delegate a large share of this responsibility to the municipalities. It is but recently, relatively speaking, that the concept of public welfare has grown to include more than poor relief, sanitation and institutions of confinement and that the provinces have undertaken to meet these expanding needs by maintaining institutions of one kind or another, child welfare services, and other specialized programs. Thus the provinces themselves have latterly assumed the major role in public welfare and, even though the municipalities have continued to carry substantial burdens, the Provincial Governments have taken a direct part in co-ordinating the work and assisting by subsidies and other means.

At the same time, an increasing measure of responsibility on the part of the Federal Government has been in evidence; this was especially noticeable during the pre-war depression decade in the fields of unemployment relief, agricultural relief, old age pensions, financial aid to the provinces and, later, by the institution of a national system of contributory unemployment insurance.

## *Dominion Welfare Services*

The creation of the Department of National Health and Welfare (8 Geo. VI, c. 22, 1944), brought into being for the first time a Federal Government service in which matters of welfare are a prime responsibility. The main functions of that Department, in the field of welfare, are: the promotion of social security and social welfare of the people of Canada; investigation and research; the preparation and distribution of information on social and industrial conditions affecting the lives and health of the people; co-operation with provincial authorities with a view to co-ordination of efforts in the

welfare field. The Welfare Branch administers family allowances, old age pensions and pensions for the blind, and the national physical fitness program. Other welfare services are administered by the Department of Labour, the Unemployment Insurance Commission and the Department of Veterans Affairs.

**Family Allowances.**—The Family Allowances Act, 1944, was introduced for the purpose of equalizing opportunity for the children of Canada. The allowances are paid monthly to parents (to mothers, except in unusual circumstances) and must be spent exclusively for the maintenance, care, training, education and advancement of the child.

In general, all children under sixteen years of age are eligible for an allowance, including Indians and Eskimos. To be eligible a child must be registered for the allowance and be maintained by a parent, who is defined in the Act. For registration purposes a child must be under the age of sixteen years, must reside in Canada and, in addition, must have been born in Canada and resident since birth or lived in Canada for the three years preceding registration. Residence provisions do not apply to children born to parents domiciled in Canada but temporarily out of the country. The allowance is not payable to a child who, being of an age when he is required to attend school by the laws of the province where he resides and physically fit to attend school, fails to do so or to receive equivalent training.

The allowances, which are tax free, are paid by cheque monthly at the following rates:—

Children under 6 years of age .....	\$5
Children from 6-9 years of age .....	\$6
Children from 10-12 years of age .....	\$7
Children from 13-15 years of age .....	\$8

The allowances are reduced after the fourth child as follows: one dollar reduction for the fifth child, two dollars each for the sixth and seventh child, and three dollars for each additional child.

Current disbursements under the Family Allowance Act are running at the rate of \$264,000,000 per annum.



*Rest and relaxation for mothers and children are provided in the three-room nursery at Windsor Station, Montreal, for the use of families while waiting between trains.*

## Family Allowance Statistics, September, 1947

Province or Territory	Families to Whom Allowances Were Paid	Total Children	Average Allowance per Family	Average Allowance per Child	Total Allowances Paid Sept., 1947
	No.	No.	\$	\$	\$
Prince Edward Island	12,583	31,794	14.97	5.93	188,425
Nova Scotia.....	86,123	200,353	13.82	5.94	1,190,302
New Brunswick.....	67,409	172,558	14.96	5.84	1,008,347
Quebec.....	460,536	1,246,219	15.87	5.86	7,308,986
Ontario.....	544,096	1,078,588	11.93	6.02	6,492,211
Manitoba.....	99,434	206,208	12.47	6.01	1,239,905
Saskatchewan.....	114,693	258,528	13.55	6.01	1,553,846
Alberta.....	116,338	249,317	12.87	6.00	1,497,075
British Columbia.....	132,324	248,601	11.25	5.99	1,488,733
Yukon and N.W.T.....	3,017	6,564	12.80	5.88	38,626
<b>Totals.....</b>	<b>1,636,553</b>	<b>3,698,730</b>	<b>13.45</b>	<b>5.95</b>	<b>22,006,456</b>

**Old Age Pensions and Pensions for Blind Persons.**—The Old Age Pensions Act, passed by Parliament in 1927, provided for the payment of non-contributory pensions to persons 70 years of age or over who fulfilled certain requirements as to income, residence and nationality. An amendment to the Act, passed in 1937, provided for pensions for blind persons 40 years of age or over who fulfilled similar requirements.

Several amendments have since been made to the Act, the most important of these being made in 1947. As the Act stands at present, the maximum income allowed to old age pensioners, including pension, is \$600 a year in the case of an unmarried pensioner and \$1,080 a year in the case of a married pensioner, with higher amounts for blind pensioners. Each province is free to fix the maximum pension payable and the maximum income allowed within the limits of the Act and the Federal Government's contribution to any pensioner shall not exceed 75 p.c. of \$30 a month. The qualifying age for old age pensioners remains at 70 years, while that for blind pensioners has been lowered to 21 years. Residence requirements have been relaxed by the latest amendments and the requirement regarding nationality has been eliminated. The Department of National Health and Welfare is responsible for the Dominion administration of pensions paid under the Old Age Pensions Act.

### Summary of Old Age Pensions, by Provinces, as at June 30, 1947

Province or Territory	Total Pensioners	Average Monthly Pension	Pensioners to Total Population	Persons 70 Years of Age to Total Population	Federal Government's Contribution since 1927
	No.	\$	p.c.	p.c.	\$
Prince Edward Island	2,140	19.41	2.28	6.38	3,009,604
Nova Scotia.....	15,613	22.81	2.55	5.39	28,164,999
New Brunswick.....	13,571	22.79	2.83	4.58	19,851,359
Quebec.....	54,906	24.03	1.51	3.28	91,291,747
Ontario.....	65,975	24.52	1.61	5.06	160,645,989
Manitoba.....	13,774	24.51	1.89	4.26	34,174,454
Saskatchewan.....	14,396	24.32	1.73	3.86	33,096,641
Alberta.....	12,811	24.09	1.60	3.63	27,236,639
British Columbia.....	18,400	24.19	1.83	5.08	37,649,065
Northwest Territories	17	24.71	0.14	1.52	36,814
<b>Canada.....</b>	<b>211,603</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>435,157,311</b>

**Summary of Pensions for Blind Persons, by Provinces, as at  
June 30, 1947**

Province or Territory	Total Pensioners	Average Monthly Pension	Pensioners to Total Population	Federal Government's Contribution since 1937
	No.	\$	p.c.	\$
Prince Edward Island.....	119	22.81	0.127	162,644
Nova Scotia.....	690	24.23	0.113	1,075,018
New Brunswick.....	761	24.65	0.159	1,252,153
Quebec.....	2,742	24.65	0.076	4,007,972
Ontario.....	1,634	24.71	0.040	2,651,690
Manitoba.....	395	24.76	0.054	583,279
Saskatchewan.....	381	24.79	0.046	564,305
Alberta.....	285	24.51	0.036	398,400
British Columbia.....	376	24.49	0.037	566,778
Northwest Territories.....	1	25.00	0.008	325
Canada.....	7,384	—	—	11,262,564

**Unemployment Insurance.**—In 1940, by an amendment to the British North America Act, the Federal Government was given complete jurisdiction in the field of unemployment insurance and since that time a national system of unemployment insurance administered by the Unemployment Insurance Commission has been in operation. (*See Labour Chapter.*)

**Physical Fitness.**—A program of fitness and recreation for Canada was introduced with the proclamation on Oct. 1, 1943, of the National Physical Fitness Act. Under that Act a National Council has been established to promote the well-being of the people of Canada through physical fitness and recreational activities. The Council, set up on Feb. 15, 1944, is an advisory body appointed by the Governor General in Council, which meets twice each year to discuss the over-all program, and to advise the Minister of National Health and Welfare on various aspects of it. In some provinces, provincial fitness councils function on lines comparable to the National Council.

The Act is administered by the Department of National Health and Welfare whose Physical Fitness Division acts as a clearing house among the provinces for the latest information on fitness, recreation, community centres, physical education, sports and kindred activities.

The Federal Government makes available to the provinces on a per capita basis an amount not exceeding \$225,000 annually for the promotion of physical fitness and recreational projects. Financial assistance is given only to those provinces that have signed specific agreements with the Federal Government, such provinces receiving their share to the extent to which they match it dollar for dollar.

Province	Maximum Financial Grant \$	Expiry Date of Agreement	Province	Maximum Financial Grant \$	Expiry Date of Agreement
P.E.I.....	1,861	Mar. 31, 1948	Man.....	14,290	Mar. 31, 1948
N.S.....	11,318	Dec. 31, 1948	Sask.....	17,546	Jan. 1, 1954
N.B.....	8,958 <sup>1</sup>	No agreement	Alta.....	15,591	Mar. 31, 1948
Que.....	65,248 <sup>1</sup>	No agreement	B.C.....	16,016	Mar. 31, 1948
Ont.....	74,174 <sup>1</sup>	No agreement			

<sup>1</sup> Set aside pending agreement.



Youth-training centres have been established in many communities as part of provincial fitness programs encouraged by Federal grants under the National Physical Fitness Act. These programs direct the energies of growing boys and girls into useful and enjoyable channels.

**Canadian Government Annuities.**—The Canadian Government Annuities Act was passed in 1908 to authorize the issue of Government annuities, the purpose being to encourage and aid Canadians to make provision for old age. Any resident of Canada may purchase a Federal Government annuity up to \$1,200, payable for life only, or for life with a guarantee period of 10, 15 or 20 years, or for the lives of joint annuitants with continuation to the survivor. Immediate annuities may be purchased in a lump sum and are payable immediately. Deferred annuities are usually bought by employed persons and are purchased by payment of periodic premiums or a single premium, and are payable on retirement.

Annuities may be purchased under individual contracts or by members of groups under group contracts. A group contract is generally an agreement with an employer to implement a retirement plan approved by the Minister of Labour, the purchase money being, as a rule, derived jointly from employers' contributions and deduction from wages.

On Mar. 31, 1947, annuity income of \$16,191,058 was payable under 38,754 contracts. The number of deferred annuities being purchased by

individuals privately was 63,504. The number of group contracts was 612, covering 70,996 registered employees. The balance at credit of the Annuities Fund was \$357,161,953.

Local offices are maintained in 43 centres throughout Canada to advise the public regarding the purchase of Government annuities.

**Dependents' and Veterans' Allowances.**—Allowances paid to veterans' dependents and to certain non-pensionable veterans are dealt with under Veterans Affairs, p. 65.

### *Provincial Welfare Services*

The field of provincial welfare work is a very wide one. It includes homes for the aged and infirm, children's aid societies, reformatories, day nurseries, homes for child delinquents, training schools for mentally defective children, psychiatric services and industrial schools. These are, in some provinces, maintained solely by provincial funds, in others by municipal, public or joint municipal and provincial funds. The Provincial Governments also supervise the institutions operated by cities, counties, districts and religious and benevolent societies, provide mothers' allowances and other social services and, in co-operation with the Federal Government, provide old age pensions and pensions for the blind (*see pp. 57-58*).

**Mothers' Allowances.**—Eight of the provinces provide allowances to mothers who are widowed or who, under certain circumstances, are without means of support. Except in Alberta, where 25 p.c. of the allowance is borne by the municipality, and in Manitoba, where part of the cost is charged back to the municipalities through an equalized assessment, the whole cost is provided from provincial funds. The Acts of the respective provinces stipulate that the applicant must comply with certain conditions at the time of application.

In Nova Scotia the exact amount paid is determined by the special circumstances of each case, with a monthly maximum of \$80 per family. In New Brunswick the maximum allowance is \$27.50 per month for a mother and one child, and \$7.50 per month for each additional child. Under certain circumstances an additional \$7.50 per month may be paid, provided the total amount payable per month does not exceed \$60. In Quebec a mother with one child receives \$35 per month if living in a city or town of 10,000 or more, \$30 per month if living elsewhere. An additional one dollar per month each is paid for the second, third, fourth and fifth child, \$2 each for the sixth and seventh and \$3 each for the eighth and subsequent children. In Ontario the maximum rate for mother and child is \$42 in a city, \$36 in a town and \$30 in a rural district, with \$6 for each additional child. An additional \$10 per month per beneficiary may also be paid where need is evidenced. Manitoba pays a maximum monthly allowance of \$40 for a mother and one child, excluding winter fuel, with additional allowances for subsequent children and a disabled father in the home. The maximum monthly allowance, excluding winter fuel, granted to any size of family, with or without the father in the home, is \$121. In Saskatchewan, a maximum allowance of \$10 is paid for the mother, \$10 for an incapacitated father living with the family, \$15 for the first child, \$10 for the second and \$5 for each succeeding child to a maximum of ten children. The maximum monthly allowance for a family is \$85. Alberta pays a maximum of \$35 per month for a mother and child, with the

amount rising to \$100 for a mother with nine children. The exact amount of allowance is set by the Department after consideration of circumstances in each case. Under the British Columbia regulations the amount that may be paid is \$42.50 per month for mother and one child and \$7.50 for each additional child and for an incapacitated husband in the home.

### *Workmen's Compensation*

For accidents occurring in the course of employment, compensation is payable in accordance with the law of every province, except Prince Edward Island, to workers or, in fatal cases, to their dependents. The entire cost of compensation and medical aid is borne by employers through a collective liability scheme administered by the province. Monthly pensions at a fixed rate are paid to widows and children; injured workmen receive two-thirds of their earnings (three-quarters in Saskatchewan) during total disablement, but the maximum amount of earnings taken into account is \$2,000 in Nova Scotia, New Brunswick, Manitoba and Alberta and \$2,500 in Quebec, Ontario, Saskatchewan and British Columbia.

**Dependent and Handicapped Groups.**—The work of the various institutions and agencies for the care of dependent and handicapped groups may be classified under two main headings: the care of adults and the care of children.



Mothers bring their infants to baby clinics for early immunization against common childhood diseases.

Latest data show that at June 1, 1946, there were 16,334 adults under care. Of these, 1,043 were between the ages of 20 and 30 years; 1,617 between 30 and 50; 1,369 between 50 and 60 years; and 12,305 were 60 years of age or over. Forty per cent were supported from charitable and private funds. In regard to mental and physical condition, 1,794 were either blind, deaf and dumb, or crippled, while 1,826 were feeble-minded or sub-normal, and 1,183 were epileptics, incurables or insane.

At the same date, there were under care 30,317 children under 20 years of age, of which number 5,926 were in homes for adults and children; 11,754 in orphanages; 583 in day nurseries; and 12,054 in children's aid societies.

### *Other Welfare Services*

There are in existence many voluntary organizations whose efforts are directed to social service work. The Canadian Welfare Council gives national direction to, and co-ordinates the work of, the local welfare agencies; specialized organizations, such as the Canadian National Institute for the Blind and the Canadian Federation of the Blind, occupy a somewhat similar role in their particular fields. The various Community Chest organizations and service clubs assist welfare work by helping to finance local organizations, and the great work of the Young Men's Christian Association, the Young Women's Christian Association, the Catholic Youth Organization and the Young Men's Hebrew Association, the Boy Scouts, Girl Guides and similar youth organizations in what may be described as preventive rather than curative work cannot be overlooked. Day nurseries prove invaluable to many mothers who are obliged to work. Most of the activities of these organizations are not susceptible to statistical measurement. The Canadian Red Cross, the Victorian Order of Nurses, and the Order of St. John perform many welfare services, though they are more properly designated as public-health organizations.

### *★ Veterans Affairs*

The Second World War was only a few months old when Canada began planning for the re-establishment of her ex-service men and women in civilian life. During the War this planning continued and a comprehensive program, justly termed one of the most extensive and generous in the world, was in effect when victory became a fact.

The Department of Veterans Affairs was established in October, 1944, to administer the legislation concerning rehabilitation. The peak of the Department's work was reached in 1946, since demobilization of approximately one million men and women who served in the Armed Forces of Canada was almost entirely completed during that year. It has been estimated that, assisted by the rehabilitation program, 95 p.c. of these veterans have found peacetime occupations or are completing training for their chosen careers.

The Department of Veterans Affairs has an organization extending from Halifax to Vancouver, including hospitals in all the large centres. Close liaison is maintained between the Department of Veterans Affairs and other Dominion and Provincial Departments and community organizations.

Approximately one-half of the staff of the Department has been engaged in providing adequate medical treatment and care for the thousands of eligible veterans requiring it. The remainder of the staff has dealt with the various other Branches: the Veterans' Land Act Administration; the Rehabilitation Branch; the Canadian Pension Commission; the War Veterans' Allowance Board; General Administration; etc.

Certain of the legislation passed for the assistance of veterans has served its purpose and has been dropped. Continuing legislation is outlined below.

**Treatment Regulations.**—The majority of veterans receive treatment under five of the twelve classifications contained in these regulations.

Class I provides treatment for pensioners for their pensionable disability. If hospitalized, the veteran receives the equivalent of 100 p.c. pension rate less \$15 per month, and if an out-patient, the equivalent of 100 p.c. pension rate.

Class II provides treatment shown to be required at the time of discharge. Such treatment must be commenced generally within thirty days following discharge and may be continued for the period of a year, or the period of service if less than a year, with allowances equal to the pay and allowances of rank in effect at the time of discharge. If pension entitlement has been granted, treatment may be continued to finality.

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*Eminent medical men from Canada and the United States watch intently while the plastic surgery consultant at Christie Street Hospital, Toronto, performs a delicate operation.*



Class III provides treatment for veterans for any disability not a result of misconduct arising during the year following their discharge. While receiving such treatment, monthly allowances of: single \$50, married \$70, plus allowances for dependents, may be paid.

Class V provides treatment for the remainder of their lives for veterans with meritorious service, where it is shown that the veteran is unable to afford the treatment required. No allowances are paid, except, where necessary, a "comforts and clothing" allowance of up to \$10 a month.

Class VI provides domiciliary care for totally disabled aged veterans who require some one to look after them, but who do not require active treatment.

Veterans are also entitled to any dental treatment required during the year following discharge. They are provided, free of charge, with prosthetic appliances which they require and these appliances are serviced and renewed for life.

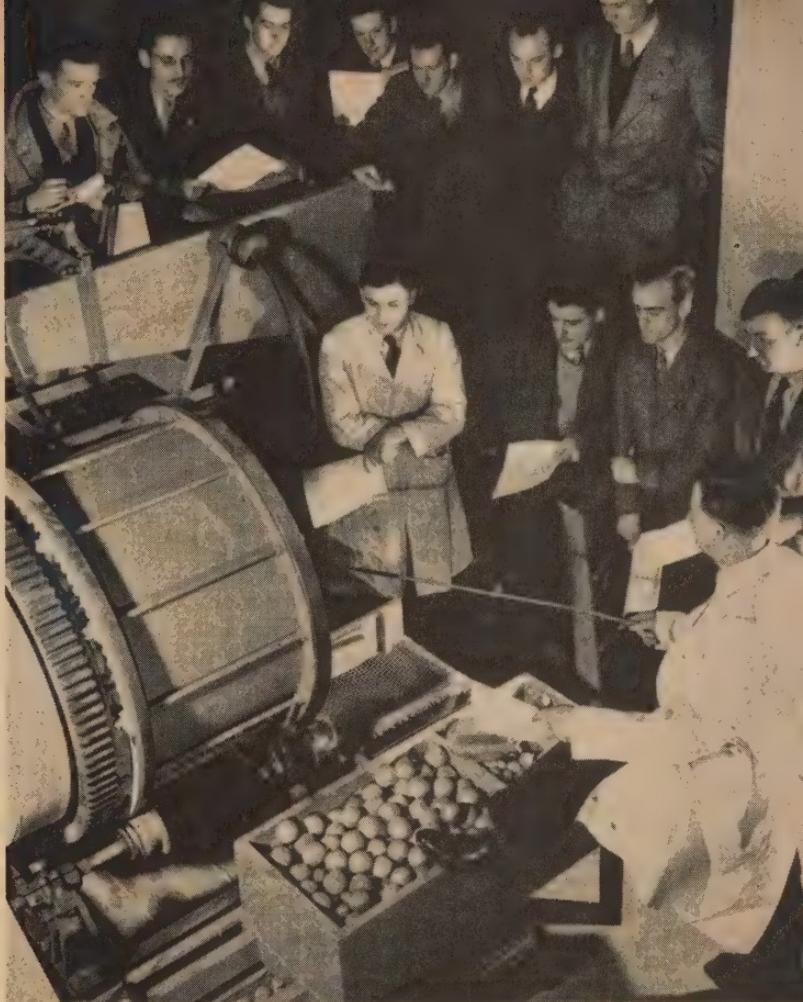
The general policy with regard to post-discharge treatment is designed to provide the best possible professional medical and surgical care for veteran patients. The peak of the load was reached in the spring of 1946 and since then a large proportion of the Service hospitals taken over to meet the peak have been closed and a permanent building program undertaken, much of which will not concern beds but rather ancillary services essential for adequate investigation, diagnosis and treatment.

**Veterans Rehabilitation Act.**—Under this legislation considerable numbers of veterans have been given the opportunity to resume schooling interrupted by war service and to upgrade their abilities in almost every field of business and professional endeavour. Training allowances as well as academic fees were paid under the Act, which also provided for allowances to veterans temporarily incapacitated, those awaiting returns from new farms and businesses, and veterans lacking employment in the first eighteen months after discharge. The majority of these allowances have now ceased, except for those to veterans still studying at Canada's universities under the rehabilitation plan, and those whose applications for vocational training came late in 1947. Awaiting returns allowances may be made available to veterans settled on farms under the Veterans' Land Act at any time within one year after their establishment. Provision is also made under the Act for certain disabled pensioners and veterans in hospital whose training has been necessarily postponed.

**War Service Grants Act.**—This Act provides for gratuities and re-establishment credits for veterans, and these are calculated on length, type and category of service. Payment of war service gratuities has been made to more than 940,000 ex-service men and women, virtually completing this portion of the program. However, re-establishment credits, which are in effect additional gratuities expended on the veterans' behalf only for certain approved purposes, may be used at any time within ten years after the date of discharge or cessation of hostilities (Dec. 31, 1946, under this Act), whichever is the later, provided alternative rehabilitation benefits have not been obtained. The average re-establishment credit is approximately \$400.

**The Pension Act.**—Under this Act pensions are paid to veterans as a compensation for loss or lessening of normal abilities incurred during service. The 100 p.c. pension rates per annum for ranks equivalent to Lieutenant (military) or lower are: man, \$900; wife, \$300; first child, \$180; second

*Student veterans in an engineering class receive instruction in the use of a rock-grinding mill.*



child, \$144; each subsequent child, \$120; widows, \$720. Higher rates are in effect for higher ranks. Pensions vary from 5 p.c. to 100 p.c. based on assessed percentage of disability. The insurance principle applies for service in Canada and overseas. Under this principle the disability need not be directly a result of service duties.

The Canadian Pension Commission examines the final medical report of each discharged member of the Forces. If a disability is found on discharge a decision on pension entitlement is rendered. Adequate provision exists for unfavourable decisions to be reviewed, and veterans may have the assistance of the Veterans' Bureau in preparing and presenting such claims for review at no cost to the veteran.

**War Veterans' Allowance Act.**—Veterans become eligible for an allowance under this Act when they reach the age of 60 or, due to physical or economic reasons, or a combination of both, become incapable of supporting themselves before reaching that age. The age limit for widows of veterans who might have qualified is 55. To qualify, veterans must have served with the Canadian Forces in a theatre of war, or on active service with the Canadian Forces in two wars. The maximum annual allowances are: single \$365, married

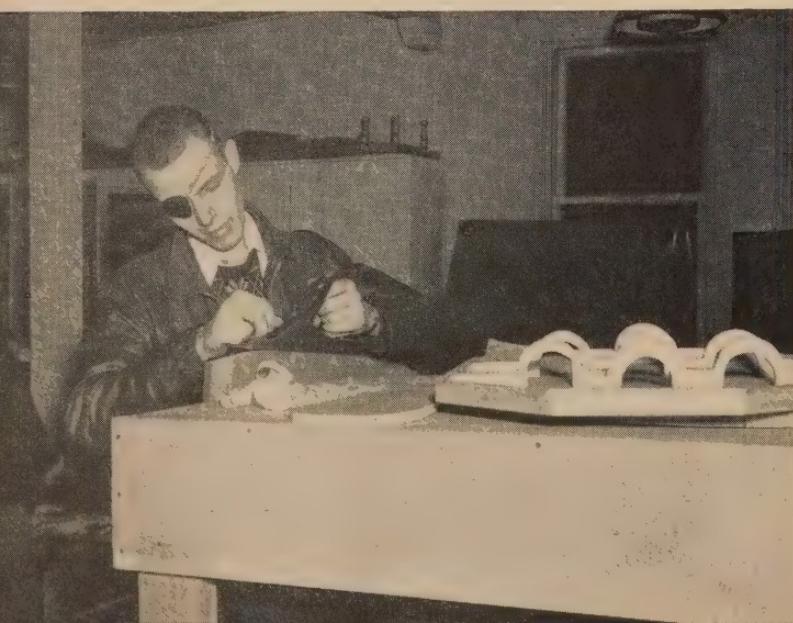
\$730. Reductions in these allowances are made for other income, although the exemptions to this rule were recently increased to permit single veterans a maximum annual income of \$640, and married veterans \$1,130, inclusive of allowances, without the allowances being reduced.

**Veterans' Land Act.**—This act offers three main types of assistance to qualified veterans for settling on the land: full-time farming, small holdings in connection with industrial or other employment, or small holdings in connection with commercial fishing. Maximum assistance allowed is \$6,000, of which up to \$1,200 may be spent for stock and equipment. The veteran pays down 10 p.c. of the cost of land, buildings and permanent improvements, and contracts to repay two-thirds of that cost over a period of not more than twenty-five years at 3½ p.c. interest. The remainder of the cost becomes a grant from the Federal Government but may not be realized until the veteran has satisfactorily fulfilled the terms of his contract for at least ten years.

The Act also contains provision for assistance to veterans settling on provincial Crown lands and Indian Reserves, and to veterans holding farms under lease or by agreement of sale. There is also provision for fully repayable loans at 3½ p.c. interest to veterans who own their own farms.

**The Veterans' Business and Professional Loans Act.**—This Act enables veterans to obtain loans through the chartered banks of Canada up to a maximum of \$3,000 at not more than 5 p.c. interest for business or professional purposes. The amount of the loan may not exceed two-thirds of the total amount to be invested in the business by the veteran. The chartered banks follow normal lending practices, but the Government guarantees each individual bank at the rate of 25 p.c. on any loss incurred on the first million dollars loaned by each bank, and 15 p.c. on loans in excess of the first million dollars. The total amount of loans by all banks to which such guarantee extends is \$25,000,000.

In addition to the above legislation constituting the Canadian rehabilitation program, there are a number of Acts entitling, to a greater or lesser degree, former members of Auxiliary Services, Merchant Navy, South African Nurses, Special Operators, etc., to benefits under all or part of this program.



A convalescent veteran exercises muscles and passes the time pleasantly at carpentry in the occupational therapy department of a Veterans Affairs hospital.

## Survey of Production

P

ROSPEROUS conditions, caused by huge post-war demand for civilian goods, prevailed in the past two years, though industrial operations showed some recession from wartime achievements. Ample buying power in the domestic market was supplemented by heavy export trade financed by Government credits. Construction to meet the demand for new residential and industrial requirements also contributed to the general state of well-being.

The value of production, according to preliminary computation, was greater in 1947 than in any other peacetime year. Activity during 1946 was retarded by lack of raw materials and by industrial disputes but the situation improved greatly in 1947, volume and prices rising to high levels.

The scope of the survey of production is limited to a discussion of the production of commodities classified as primary and secondary operations. The activities of the transport, trade, finance, government and service groups are entirely excluded. A report of this kind must differentiate between the more important branches of production and at the same time present a grand total from which duplication has been eliminated. In the component items for some industries, such as sawmilling, fish canning and curing and non-ferrous metal smelting, production is regarded both as a primary and a secondary operation but the duplication is eliminated from the grand totals.

The gross value of commodity production in 1945, the latest year for which final figures are available, amounted to \$11,700,000,000 compared with \$12,600,000,000 in the preceding year. The termination of hostilities in 1945 led to a reduction in productive operations during the last half of the year; the high level reached in 1944 resulting from the heavy demands of wartime was the peak of production in Canada. While the statistics of gross production are of interest as indicating the amount of revenue produced by the operating units in the field, the total includes a large element of duplication. The net value of production, obtained by deducting the cost of materials, is a more accurate measure of the contribution to the national economy. The net value of output was \$6,100,000,000 in 1945, compared with \$6,700,000,000 in the preceding year and \$6,300,000,000 in 1943. The records of all years other than those two were broken in the period under review.

The net output of the six primary industries expanded from \$1,400,000,000 in 1938 to \$2,500,000,000 in 1945, an increase of 80 p.c. The relative advance by the secondary industries consisting of construction, manufactures and custom and repair was far greater, the gain having been 134 p.c. The outstanding feature was the marked advance of 149·6 p.c. in the net value of goods manufactured, the relative importance of which rose from 49·9 p.c., in the pre-war year to 58·6 p.c., in 1945. Forestry, fisheries and trapping were also of relatively greater importance in 1945 than in 1938.



*Apple orchards in bloom at Penticton on the southern shore of Okanagan Lake, B.C.*

Manufacturing has definitely taken precedence over agriculture in net value of production, the share of the latter in 1945 having been slightly more than 21 p.c. Forestry at 9 p.c., and mining at 6·8 p.c. followed in the order named.

A general impression of the change in the volume of commodities produced may be obtained by dividing the net values for each of the nine industrial groups by its price index. There was, of course, a marked advance in the volume of production during the war years, the output of commodities rising 65 p.c. between 1938 and 1945. Manufactures, after the elimination of duplication with the primary industries, showed the greatest gain at 119·5 p.c. Important advances were shown by each of the nine main branches of production except mining.

The size of the working force, without distinction as to status, is an excellent measure of the relative importance of the various industries in the economic life of Canada. In 1945, manufactures and agriculture afforded working opportunities to slightly more than one-half of Canada's working force, with manufactures slightly in the lead. Services at 17·3 p.c. and trade and finance at 15·1 p.c. came next in importance. The transportation and communications, construction and mining industries were responsible for the occupation of 7·7 p.c., 4·2 p.c. and 1·6 p.c. of the active civilian labour force.

Ontario produced 41·1 p.c. of the Canadian output in 1945, leading the other provinces by a considerable margin. Quebec followed with 27·9 p.c., while British Columbia held third place with a percentage of 8·8. The advances in net value produced in Ontario, Nova Scotia, Manitoba

and Alberta during 1945 over 1938 were less than the percentage increase in the nation-wide total. On the other hand, the percentage for Quebec rose from 25.3 in 1938 to 27.9 in 1945, and for Saskatchewan from 4.2 to 6.0.

Net commodity production was \$502 per capita in 1945 compared with \$257 in the pre-war year. Each of the provinces showed per capita betterment in this comparison. Ontario with its pre-eminent industrial position and diversification was in first place with \$624 per capita, a gain of \$279 over the level of 1938. British Columbia ranked second with a per capita of \$564, compared with \$305. The per capita output of Quebec was more than doubled amounting to \$476 in 1945.

#### *Gross and Net Values of Production, by Industries, 1944 and 1945*

Industry	1944		1945	
	Gross	Net	Gross	Net
	\$	\$	\$	\$
Agriculture.....	1,918,212,000	1,533,372,000	1,683,237,000	1,284,682,000
Forestry.....	887,973,532	507,357,605	964,237,446	550,970,574
Fisheries.....	123,705,565	76,889,487	158,202,990	85,373,768
Trapping.....	23,988,773	23,988,773	21,505,447	21,505,447
Mining.....	897,407,212	454,022,468	766,721,126	413,576,800
Electric power.....	215,246,391	209,757,908	215,105,473	210,036,214
<i>Less duplication in forest production<sup>1</sup>.....</i>	<i>78,294,000</i>	<i>61,357,833</i>	<i>80,641,000</i>	<i>64,501,946</i>
Totals, Primary Production.....	3,988,239,473	2,744,030,408	3,728,368,482	2,501,642,857
Construction.....	449,838,059	249,037,017	543,579,833	267,957,837
Custom and repair.....	243,424,000	165,174,000	262,621,000	178,200,000
Manufactures.....	9,073,692,519	4,015,776,010	8,250,368,866	3,564,315,899
Totals, Secondary Production.....	9,766,954,578	4,429,987,027	9,056,569,699	4,010,473,736
<i>Less duplication in manufactures<sup>2</sup>.....</i>	<i>1,160,974,424</i>	<i>437,045,069</i>	<i>1,115,088,513</i>	<i>428,243,781</i>
<b>Grand Totals.....</b>	<b>12,594,219,627</b>	<b>6,736,972,366</b>	<b>11,669,849,668</b>	<b>6,083,872,812</b>

<sup>1</sup> Duplication eliminated between the agriculture and forestry totals; both items include the value of forest products obtained from farm lots. <sup>2</sup> This is the duplication eliminated under "Manufactures" which item includes sawmills, pulp and paper mills, etc., also included under other headings above.

#### *Gross and Net Values of Production, by Provinces, 1944 and 1945*

Province or Territory	1944		1945	
	Gross	Net	Gross	Net
	\$	\$	\$	\$
Prince Edward Island.....	32,865,329	18,850,736	36,431,776	20,604,911
Nova Scotia.....	342,965,225	193,327,946	338,522,173	182,724,409
New Brunswick.....	249,614,350	135,376,199	254,962,964	133,984,112
Quebec.....	3,694,059,531	1,899,594,337	3,308,798,968	1,694,335,871
Ontario.....	5,347,245,765	2,682,709,260	5,051,713,237	2,499,527,223
Manitoba.....	587,765,693	313,093,535	560,731,469	288,608,923
Saskatchewan.....	740,052,295	528,818,265	575,140,633	364,706,923
Alberta.....	655,354,857	416,120,352	599,366,498	359,235,626
British Columbia.....	938,643,866	543,947,198	939,029,406	535,488,648
Yukon and Northwest Territories.....	5,652,716	5,134,538	5,152,544	4,656,166
<b>Totals.....</b>	<b>12,594,219,627</b>	<b>6,736,972,366</b>	<b>11,669,849,668</b>	<b>6,083,872,812</b>



# Agriculture

**A**GRICULTURE is the most important single industry in Canada—about one-quarter of the population is engaged in farming. At the time of the 1941 Census, 3,200,000 people were living on 733,000 farms, the total extent of which, including 92,000,000 acres of improved land, was 175,000,000 acres. Most of the readily available agricultural land is now occupied and any further increase in cultivated acreage must be developed on, or beyond, the fringe of settlement or by improvement of occupied land through clearing, draining, irrigation and control of weeds.

## ★ Agricultural Developments Since 1939

The annual output of farm products increased during the war years as much as 40 p.c. over the average in the immediate pre-war period, 1935-39. The expansion was accomplished by more intensive farming, by greater efficiency and by a bountiful nature. In reaching this increased production, Canadian farmers were guided by objectives based on war needs determined at annual Dominion-Provincial agricultural conferences.

The outstanding wartime agricultural development was the rapid and pronounced expansion in the production of live stock and live-stock products, particularly of hogs, beef, poultry, eggs and dairy products. While output increased in all parts of the country, the most continuous expansion was in the Prairie Provinces where the increase in feed grains, poultry, eggs and beef cattle was striking, and that of hogs almost phenomenal. The relatively greater increase in the West was occasioned by the considerable shift from wheat-growing to more diversified farming. This was due partly to the wheat acreage diversion program and partly to lack of export demand for wheat, with consequent low prices, during a period when the markets for live stock and live-stock products were reasonably satisfactory. Later, in 1944, with improved wheat prices and a reduced carry-over, wheat acreage increased and, by the first quarter of 1945, hog production showed a decline. Total area in field crops in Canada fluctuated between 56,800,000 acres and 62,800,000 acres in the period between 1939 and 1945. In terms of grain-consuming animal units, Canada's live stock expanded significantly during the war years, reaching its peak during the 1944 crop year. By 1944, marketings of cattle, hogs, lambs and sheep were up 33 p.c., 139 p.c., and 40 p.c., respectively, over 1939. Production of milk and eggs was increased by about 11 p.c. and 63 p.c., respectively, during the same period. Since that time there has been a downward trend. Between June 1, 1944, and June 1, 1945, the number of grain-consuming animal units declined by over 7 p.c. Heavy marketings during the autumn of 1945 were an important factor in a further liquidation of live stock. Hogs declined in number most noticeably,

particularly in the Prairie Provinces. Such crops as fibre flax, soybeans, rapeseed and sunflower seed, assumed more importance in the farm production program.

The wartime shift or change in pattern of production was as significant as the increase in total output. On the prairies there was a rapid expansion in the live-stock population, a shift from wheat to coarse grains, and also a greater production of oil-bearing crops. In Ontario and Quebec, the great dairy production areas of Canada, shifts were evident in the utilization of milk, marked increase occurring in fluid sales and in the output, largely for export, of cheese and concentrated milk. There was also a moderate increase in creamery butter but a marked decline in dairy butter. In the Maritime Provinces the shift was to live stock. The Province of British Columbia expanded its seed-growing industry.

The expansion of agricultural output in Canada during the war years was the result of a number of factors, and some of these may continue in the post-war period.

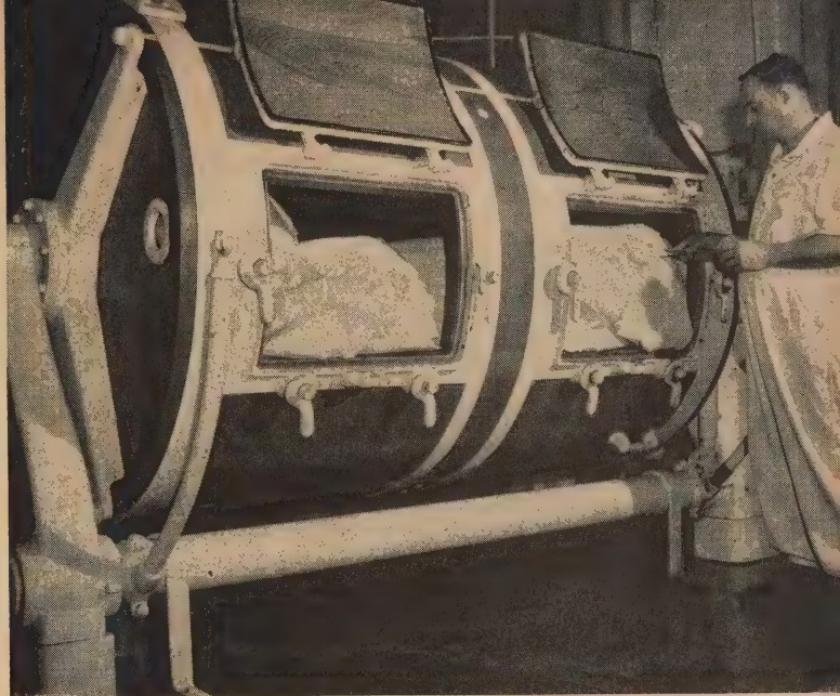
(1) *Farm Prices*.—The relatively high level of prices of farm products was of major importance in increasing production. The farm price level in 1945 was 92·3 p.c. higher than that of 1939.

(2) *Weather*.—Weather on the whole was conducive to large farm production. Adequate rainfall and favourable wintering for live stock in many parts of Canada helped to bring about a higher total output.

(3) *Technological Changes*.—In an endeavour to achieve maximum production, efforts were directed towards finding higher yielding strains and varieties of crops. This resulted in a substantial addition to agricultural output, but it is difficult to isolate the effect of any single item. Since 1939 six new kinds of oats—Ajax, Exeter, Brighton, Beaver, Larain and Laural—have been introduced. All of these are high yielding, early maturing and stem-rust resistant. Between 1939 and 1944 the acreage planted to corn for husking in Ontario changed almost entirely from the open-pollinated varieties to corn hybrids. In 1939, only 10 p.c. of the total corn acreage was planted with the hybrid seed variety; by 1944, the figure had increased to 95 p.c. Average acre yields were 38·9 bu. for the period 1936-40, and 45·8 bu. for the period 1941-45. In addition to greater yields per acre, hybrid corn has reduced the amount of labour required for harvesting as it does not lodge because of the stronger stalks and roots. The increased production of sunflowers, a valuable source of edible oil, came from improved varieties such as the better strains of Mennonite and Sunrise. These are semi-dwarf types which can be harvested by means of the ordinary combine. During the last year of the War, a hybrid variety of sunflower was developed, with a 30-p.c. greater yield per acre.

(4) *Mechanization*.—No doubt one of the major influences on farm output in recent times has been the rapid rate of mechanization in farm operations. Even with a limited supply of farm equipment available during the war years, there was a decided change toward mechanization because of shortage of labour and increased income. The largest increases were in tractors, milking machines, potato planters and diggers, combines, manure spreaders and hay machinery. Almost 90,000 tractors of all kinds were sold

Taking a moisture sample from butter churning in a modern dairy.



in the years between 1940 and 1944; there were only 160,000 tractors on all farms in 1941. More than 21,000 milking machines were sold during the same period.

(5) *Commercial Fertilizers*.—The world shortage of fertilizers during wartime directed attention to the more efficient use of such supplies as could be obtained and their careful use increased crop yields. Through the efforts of the Fertilizer Administration supplies in Canada were well maintained and the sale of mixed fertilizers rose to 527,000 tons by the middle of 1945, an increase of 161 p.c. over the pre-war period.

(6) *Processing and Preservation of Foods*.—The necessity for transporting perishable farm products to different parts of the world under adverse conditions increased research in processing farm products. The task was two-fold: to process the product so that it would keep, and to reduce bulk to conserve limited shipping space. The rapid expansion of the egg-drying and vegetable-dehydration industries enabled Canadian farmers not only to maintain, but greatly to increase production of many perishable products. Canned vegetables and juices, evaporated milk and processed fruits were sent overseas in large quantities.

(7) *Specialization*.—Another important factor in the expansion of agricultural output was the continued development of specialization. Though on many farms a wide range of products is still produced, the output on others is more specialized, and probably more efficient, than it was formerly. The more specialized operator in turn tends to leave to other specialists the production of farm products and supplies, or the operation of services, at which they are more proficient. Thus the production of seeds, eggs for hatching, and such services as milk hauling, feed mixing and seed cleaning, are being undertaken more generally by persons other than the farmers themselves. For example, the output of commercial mixed feeds (prepared stock and poultry

feed) trebled between 1939 and 1944. The production of poultry feeds, including laying and hatching mash, growing mash, scratch feed and chicken starter, was the largest single item.

In summation, agriculture, like many other industries, underwent marked changes in the war years. The Canadian agricultural problem was not one of ploughing up pastures, of bringing new areas into production in order to expand food supplies at all costs; rather it was the diversion of farm acreages to new commodities, or to new proportions of previously cultivated crops. Encouragement, rather than direct regulation, was relied upon. Production in Eastern Canada was intensified. In Western Canada major shifts occurred in the production program, and diversification, which had been making slow progress, was hastened. This trend slowed down considerably after 1944. Production in Canada as a whole was influenced by the requirements of the British Ministry of Food and by domestic needs. Specifically, this resulted in expansion of the live-stock and live-stock products enterprise, in coarse grain acreage, and in the acreage of such crops as flaxseed, soybeans, rape-seed, fibre flax, sugar beets and peas. These changes in volume and type of product reflect a major adjustment which, considered as a whole, brought a better balance to agriculture. Though the adjustment was Dominion-wide, it was reflected most in the Prairie Provinces.

Since the War agricultural production has been maintained at nearly wartime volume though somewhat below the peak of 1944. With the demand for food practically world-wide, marketing problems are almost negligible; indeed the task is to keep production in reasonable balance to meet the somewhat varied requirements. At the Dominion-Provincial Conference in December, 1946, called to plan agricultural production for 1947, it was generally agreed that Canadian agriculture and the requirements of a hungry world could best be served by endeavouring to increase the production of live stock and dairy products and maintain the production of eggs and poultry. This involved a greater production of feed grains and, as an incentive, a considerably higher support price for oats and barley was announced in March, 1947.

Thus post-war agriculture has followed closely the pattern that arose from wartime requirements, with special emphasis on the production of live stock and dairy and poultry products, particularly eggs. Despite the world shortage of wheat, increased production of this grain in Canada beyond a somewhat definite acreage presents difficulties. Broadly speaking, unless summerfallow, an essential in long-time crop rotation, is to be sacrificed, every increase in wheat acreage tends to reduce the production of oats and barley required to feed live stock and poultry. The problem is to keep the acreage in wheat, feed grains and summerfallow in suitable balance.

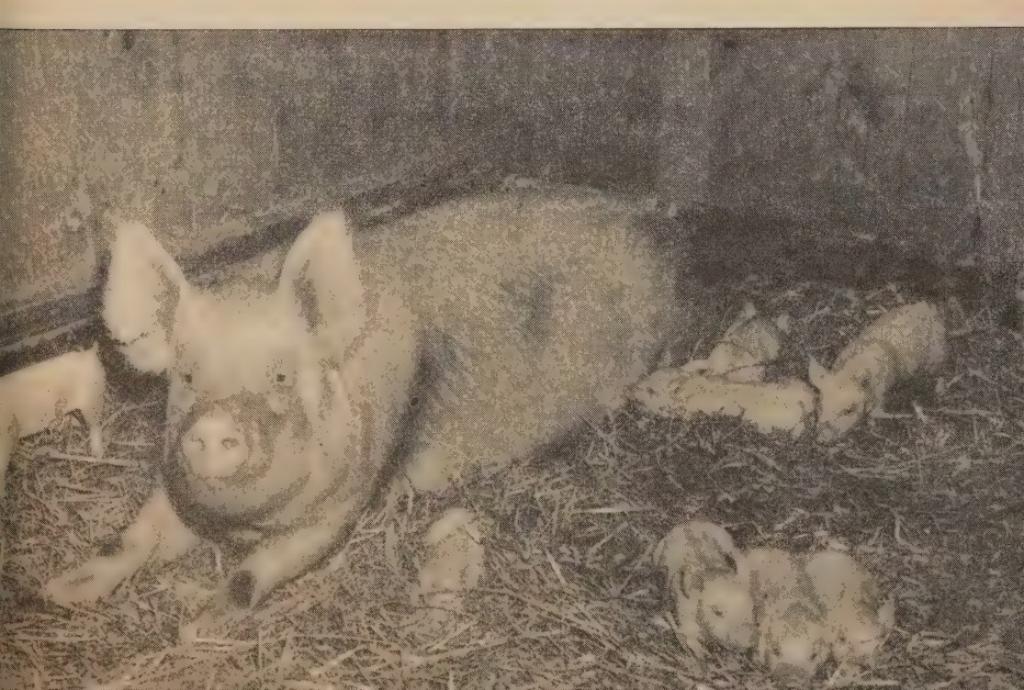
As conditions permitted, wartime agricultural controls and subsidies were lifted and by mid-summer of 1947 few remained. At the end of March 1947, it was possible to abolish the Agricultural Supplies Board and its administrations dealing with feeds, fertilizers and pesticides, seeds and fibre flax, and transfer to the Department of Agriculture continuing programs previously directed by the Board. At the same time the work of the Agricultural Food Board in directing and paying agricultural subsidies was completed and the Board ceased operations. Because of the continuation of forward food contracts with Great Britain (reviewed below) it remained necessary

to continue the operations of the three commodity boards—Meat Board, Dairy Products Board, and Special Products Board. As these Boards were originally established under the War Measures Act, it was necessary to re-establish them under the provisions of the Agricultural Products Act, 1947. With the continued shortage of agricultural products and supplies and the generally higher price-level in some countries, it remained necessary to retain control of the export of many agricultural commodities under the Export and Import Permit Act, 1947. Without this control over exports, domestic requirements and overseas commitments of many agricultural commodities could not be safe-guarded.

The United Kingdom has always been Canada's best customer for farm products, and since the War the bulk of Canada's exportable surplus has gone to that country. Almost immediately after the outbreak of war the British Ministry of Food became the sole buying agency for all food imported from Canada, and the British Government announced its desire to purchase through the Canadian Government and not through the trade. This necessitated the establishment of commodity boards, though wheat purchases were negotiated through the Canadian Wheat Board. This action by the British Government, originally arising from the necessity of war and continuing through the post-war period because of world shortage and as a means of providing a greater measure of price stability, was a considerable departure from pre-war export trading and made it necessary for the two Governments to enter into agreements for practically all agricultural products, most of which have been projected into future years. This form of trading may continue for some time. The more important agreements concern wheat, bacon, beef, lamb and mutton, cheese, evaporated milk, eggs and poultry.

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*Demand for food in the United Kingdom has resulted in a great increase in Canada's hog production. Though not at its peak, the pig population was almost 5,500,000 at the end of June, 1947. Exports of hams, shoulders and sides in the first ten months of 1947 were valued at \$49,918,854, the United Kingdom receiving 97.9 p.c. of that*



The major agreement is a four-year (1946-50) wheat agreement under which Canada will sell to the United Kingdom during the period a total of 600,000,000 bu. of wheat, some of it as flour. Based on this contract, the Canadian Government announced an arrangement aimed at giving price stability to the grain producers in the Prairie Provinces over a period of years. A guaranteed initial price will be paid on all wheat delivered to the Canadian Wheat Board and, in addition, a pool will be established into which money from the sale of all wheat will be credited. Any surplus in the pool above any initial payments on all wheat sold by the Board will be distributed to growers on the basis of their wheat deliveries over a specified period. (See also p. 82.)

The present contract for bacon is for 350,000,000 lb. in 1947 and 400,000,000 lb. in 1948, and 120,000,000 lb. of beef and 10,000,000 lb. of mutton and lamb are under contract for 1947. Miscellaneous meat products contracted for include beef and pork livers, tongues and kidneys, and 25,000,000 lb. of canned meat lunch. Eggs, either in the shell or processed as powder, call for the delivery of 83,000,000 doz. annually for 1947 and 1948. The cheese contract is for 125,000,000 lb. in each of the annual periods ending Mar. 31, 1947 and 1948, and evaporated milk will be supplied at the rate of 28,800,000 lb. in each of the similar periods. The British Ministry of Food has expressed its readiness to take quantities in excess of those specified in most of the food agreements.

Lack of dollar exchange by Great Britain, which became acute in the summer of 1947, did not upset the food contracts materially, but that country has not found it possible to buy any fresh apples of the 1946-47 crop nor, since August 1947, any poultry. Fortunately, Canadian poultry is in reasonably good demand in the United States, and the provisions of the Agricultural Prices Support Act have been extended to the apple growers (see also p. 94).

Although long-term contracts for export have been signed, Canadian farmers will need to maintain high quality to retain export markets in competition with farmers of other exporting nations. Science has made rapid progress during the War, and farmers cannot afford to ignore the contributions of scientific investigators in the fields of production, marketing and distribution of agricultural products. Canadian farmers are fortunately well served in this respect by the Dominion and Provincial Departments of Agriculture and by the universities and other research agencies.

Possibly one of the most important pieces of farm legislation enacted within recent years is the Agricultural Prices Support Act, 1944, which enables the Canadian Government, acting through a Board, to establish support prices at which the Board will buy any unmarketable surplus of designated agricultural products (except wheat, which is handled separately) and so protect the farmer against declining prices. Actually, the present food contracts with Great Britain, which are at fixed prices, act as support prices without invoking the provisions of the Agricultural Prices Support Act, and Canadian farmers, because of them, are in the satisfactory position of being able to produce many farm products with the full knowledge of an assured market at a guaranteed price.

To provide adequate farm credit, the Canadian Farm Loan Board at present carries on lending operations throughout Canada. The purposes for which loans may be granted are for farm improvements, including the erection



A feed-lot of two-year-old baby beef cattle on a ranch near Lethbridge Alta. Part of their menu includes mash drawn from the sugar-beet plant in the background.

of buildings, the purchase of live stock and equipment, farm operating expenses, purchase of farm lands and the refinancing of existing farm indebtedness. Second-mortgage loans cannot be made for the purpose of purchasing farm lands. For intermediate term credit, the Federal Parliament amended the Bank Act (Aug. 9, 1944) and passed a "companion" Act, the Farm Improvement Loans Act 1944.

Land conservation activities are being continued under the Prairie Farm Rehabilitation Act. The Act was passed in April, 1935, "to provide for the rehabilitation of drought and soil-drifting areas in the provinces of Manitoba, Saskatchewan and Alberta". Emphasis is placed upon assistance to farmers in the development of water supply and improved farm practices. Under the terms of this Act the Minister of Agriculture is authorized to introduce throughout the affected area those "systems of farm practice, tree culture, and water supply that will afford greater economic security" to the agricultural population. By an amendment to the Act in March, 1937 (1 Geo. VI, c. 14), "land utilization and land settlement" were included as additional objectives, while a later amendment in March, 1939 (3 Geo. VI, c. 7), removed the original five-year limit to the life of the Act. In 1941, the Minister of Agriculture was authorized to purchase land.

In accordance with the terms and intentions of this Act, there has been organized throughout the drier regions of the Prairie Provinces (comprising over 400,000 sq. miles located in southwestern Manitoba, southern Saskatchewan and southeastern Alberta) a rehabilitation program which has

as its main objective the adjustment of prairie agriculture to new conditions imposed by the severe droughts of the 1930-37 period and by depressed conditions affecting western grain production since 1929. This rehabilitation program covers three main phases of work: water development, land utilization, and investigations of cultural practices. In addition, considerable research in the economics of land use adjustments has been carried out.

The main forms of financial assistance provided at the present time by the Federal Government to farmers for housing purposes include: the Canadian Farm Loan Board outlined above, the National Housing Act (see pp. 197-199), the Farm Improvement Loans Act (see p. 200-201), and the Veterans' Land Act (see p. 66).

## ★ Statistics of Agriculture

### *Income of Farm Operators From Farming Operations*

Net income of farm operators from farming operations (gross income including supplementary payments less operating expenses and depreciation charges) amounted to \$1,267,362,000 in 1946. The figure is the highest recorded since the compilation of comparable statistics back to 1938 and compares with an income figure of \$1,003,724,000 in 1945 and the previously recorded high of \$1,226,849,000 in 1944.

#### *Net Income of Farm Operators from Farming Operations, 1943-46*

Item	1943	1944	1945	1946 <sup>1</sup>
	\$'000	\$'000	\$'000	\$'000
Cash income.....	1,409,561	1,828,483	1,697,698	1,742,341
Income in kind.....	262,247	275,821	286,037	300,229
Value of changes in inventory.....	-61,878	-123,910	-238,316	+46,609
Gross income.....	1,609,930	1,980,394	1,745,419	2,089,179
Operating expenses and depreciation charges.....	656,926	758,716	758,649	830,817
Net income excluding supplementary payments.....	953,004	1,221,678	986,770	1,258,362
Supplementary payments.....	37,062	5,171	16,954	9,000
Net income of farm operators from farming operations.....	990,066	1,226,849	1,003,724	1,267,362

<sup>1</sup> Preliminary.

While some increase was noted in the cash income from the sale of farm products and from the value of farm produce consumed on the farm in 1946 as against 1945, the most significant item contributing to the addition to net income was the increase in year-end inventory values. Another feature of note is the fact that while gross income increased almost 20 p.c., operating expenses and depreciation charges in 1946 gained only 12 p.c. over 1945.

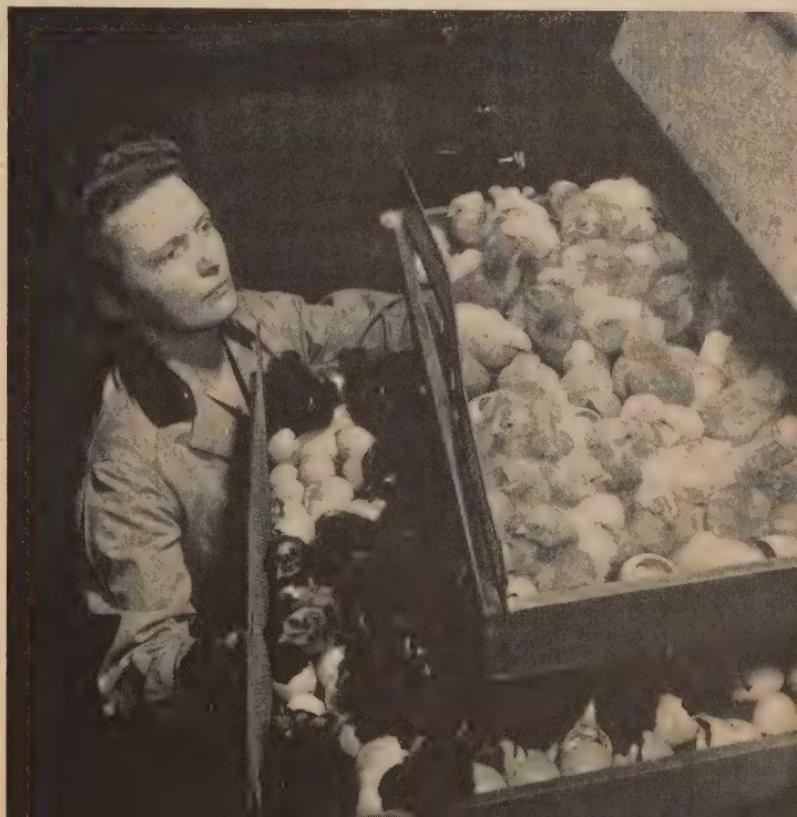
Cash income from the sale of farm products estimated to be \$1,742,341,000 in 1946 was \$44,643,000 above that of 1945, but \$86,142,000 or about 5 p.c. below the recorded high of \$1,828,483,000 established in 1944. Compared with 1945, cash receipts from sales of grains, seeds and hay showed an increase

of \$15,946,000 in 1946. This increase was due largely to the payments on wheat participation certificates for preceding crop years amounting to \$33,307,000. Gains were also recorded for 1946 in the receipts from dairy products, fruits, vegetables and special crops such as tobacco and sugar beets. These increases were considerably offset by a decline in cash income from the sale of live stock, due to a much lower volume of hog marketings. Further, liquidation of cattle, horses, sheep and lambs during 1946 more than offset increases in the numbers of hogs and poultry to result in reduced year-end live-stock inventory values for 1946 against 1945. On the other hand, larger grain crops in 1946 together with increased prices for rye and flax resulted in higher year-end grain inventory values than in 1945, the increase outweighing the loss sustained in the case of live stock. The difference in the value of live-stock and grain inventories as between the beginning and the end of 1946 amounted to \$46,609,000 as compared with a difference of \$238,316,000 between the beginning and the end of 1945. This figure for 1946 plus cash income and the value of produce consumed on farms provided a gross income of \$2,089,179,000, the largest recorded since 1938.

Operating expenses and depreciation charges amounting to \$830,817,000 in 1946 were \$72,168,000 above the 1945 figure. Of this increase, \$34,811,000 or about 48 p.c. was due to a substantial increase in the wages paid to labour. While some increase was noted for the other expense items, the maintenance of price ceilings on these items probably had a moderating effect on the increase.

Supplementary payments comprise the amount paid under the Prairie Farm Assistance Act, the Prairie Farm Income Order and the Wheat Acreage Reduction Act and are included in the year in which they were earned. These

Newly hatched chicks in an Ontario hatchery.





↑ Ontario Agricultural College, Guelph.

Second-year students of animal husbandry attend class in market appraisal.

payments amounted to about \$9,000,000 in 1946 as compared with \$16,954,000 in 1945, the difference being due to improved crop conditions throughout the Prairie Provinces, resulting in fewer municipalities seeking aid because of crop failure.

### ***Cash Income from the Sale of Farm Products***

Annual estimates of cash income from the sale of farm products represent the gross returns from all products sold off farms valued at prices received by farmers. The estimates include those Federal and Provincial Government payments that farmers receive as subsidies to prices. They do not include payments made under the Prairie Farm Assistance Act, the Prairie Farm Income Act and the Wheat Acreage Reduction Act.

### Cash Income from the Sale of Farm Products, by Provinces, 1943-46

Province	1943	1944	1945	1946 <sup>1</sup>
	\$'000	\$'000	\$'000	\$'000
Prince Edward Island.....	14,060	13,740	16,469	16,776
Nova Scotia.....	25,692	28,017	26,745	32,212
New Brunswick.....	31,373	33,134	35,295	34,667
Quebec.....	200,310	222,312	232,720	248,180
Ontario.....	385,946	404,539	452,274	469,353
Manitoba.....	146,112	176,815	154,413	171,503
Saskatchewan.....	327,634	543,689	415,058	398,853
Alberta.....	220,447	338,101	289,776	284,605
British Columbia.....	57,987	68,136	74,948	86,192
<b>Totals.....</b>	<b>1,409,561</b>	<b>1,828,483</b>	<b>1,697,698</b>	<b>1,742,341</b>

<sup>1</sup>Preliminary.

### Cash Income from the Sale of Farm Products, by Sources, 1946

Source	Cash Income	Source	Cash Income
	\$'000		\$'000
Grains, seeds and hay.....	524,860	Miscellaneous farm products....	28,716
Vegetables and other field crops.....	127,498	Forest products sold off farms..	46,404
Live stock.....	574,170	Fur farming.....	10,459
Dairy products.....	285,604	<b>Cash Income from Farm Products.....</b>	<b>1,742,341</b>
Fruits.....	47,509	Supplementary payments.....	16,970
Eggs, wool, honey and maple products.....	97,121	<b>Total Cash Income.....</b>	<b>1,759,311</b>

### Farm Wage Rates

Scarcity of labour and the maintenance of a high level of farm income were important factors contributing to the continuing rise in farm wage rates in 1947. By Aug. 15, 1947, average wage rates paid to farm help were at their highest level since comparable statistics became available in 1940. At that date average wages were \$4.13 per day and \$82.75 per month where the employer provided the board as compared with rates of \$4.04 and \$75.28, respectively, at the same date a year previously. Where the employee provided his own board, the average rates were \$5.17 per day and \$109.03 per month as against \$4.95 and \$100.62, respectively, as reported Aug. 15, 1946.

### Field Crops

**Wheat.**—The post-war world wheat shortage has continued unabated with import requirements far in excess of exportable supplies. In response to the heavy demand and with the added impetus of a guaranteed wheat payment of \$1.35 per bu. for No. 1 Northern at the Lakehead, Canadian farmers maintained their 1947 wheat acreage at a level only slightly below that achieved in 1946. Wheat seedlings would doubtless have been even higher

had not an impending shortage of feed grains and oilseeds led to substantial increases in the prices offered for coarse grains and flaxseed which were sharply reflected in increased seedings of these crops.

Although acreage in the Prairie Provinces declined less than 2 p.c. from the 1946 level, unfavourable weather conditions developed on the Prairies during mid-summer and, due principally to the effects of heat and drought, the third official estimate placed 1947 wheat production on the Prairies at 319,000,000 bu. compared with 393,000,000 bu. in 1946. The estimate of 1947 production for all Canada, including the Prairie Provinces, amounted to 340,800,000 bu. as compared with 413,700,000 bu. in 1946. Ontario, which contains the only substantial wheat acreage in Canada outside of the Prairie Provinces, produced a total of 18,300,000 bu. in 1947. All but 600,000 bu. of this total was fall wheat.

When the 1947 crop is combined with the carryover of 84,500,000 bu. at July 31, 1947, the total supply of Canadian wheat for the crop year 1947-48 amounts to 425,267,000 bu., which is some 62,000,000 bu. less than for 1946-47 and is the smallest total supply since 1938.

The United Kingdom has first claim on Canada's exportable surplus of wheat under the terms of the Canada-United Kingdom Wheat Agreement which is effective from Aug. 1, 1946, to July 31, 1950. The terms of the Agreement provide that Canada will sell to the United Kingdom during that period a total amount of 600,000,000 bu. of wheat. During each of the first two years 160,000,000 bu. will be provided at a fixed price of \$1.55 per bu., basis No. 1 Northern in store Fort William-Port Arthur, Vancouver or Churchill. The 1946-47 commitment under the contract was carried out in full and shipments under the 1947-48 commitment of 160,000,000 bu. are under way. The latter two years of the contract call for delivery of 140,000,000 bu. of wheat at a price not less than \$1.25 per bushel in 1948-49 and not less than \$1.00 per bushel in 1949-50 basis in store Fort William-Port Arthur, Vancouver or Churchill. The contract states that the actual prices to be paid during the 1948-49 and 1949-50 season are to be negotiated and settled not later than Dec. 31 immediately preceding the crop year for which it is effective. In this respect, the announcement was made on Oct. 1, 1947, that the price for the 1948-49 crop year would be \$2.00 per bu., basis in store Fort William-Port Arthur, Vancouver or Churchill.

At the time of writing (Nov. 15, 1947) the price policy enunciated on July 30, 1946, was still in effect. This policy asserted that, retroactive to Aug. 1, 1945, and continuing until July 31, 1950, the initial payment on wheat has been raised from \$1.25 to \$1.35 per bu., basis No. 1 Northern in store Fort William-Port Arthur, Vancouver or Churchill. After participation payments have been completed for the 1943 and 1944 wheat crops, and after the 10-cent payment on the 1945 crop has been made to bring the initial payment up to \$1.35 per bushel, all the remaining surplus from that crop, along with the surpluses from the succeeding four crops of 1946, 1947, 1948 and 1949 will be placed in a five-year pool. Participation certificates will be issued in the usual way, but the payment on these certificates will not be made until after the conclusion of the five-year pool at July 31, 1950. However, late in August, 1947, the Minister of Trade and Commerce announced that early in the next session of Parliament the Federal Government would recommend



*Rolling farmlands near Minnedosa, Man.*

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an increase in the initial wheat price paid to western farmers and would suggest that it be made retroactive to the 1945 crop. It was further stated that the amount of the increase could not then be decided as it would depend on developments in the market situation between that time and the assembling of Parliament.

As a part of the policy announced for the crop year 1946-47, the export price of Canadian wheat to countries other than the United Kingdom was raised on Aug. 1, 1946, to a level approximating that on the principal United States markets and has since fluctuated in sympathy with the United States price. At the same time the price to domestic users of wheat in Canada was continued at \$1.25 per bu. with the Government assuming carrying costs on the wheat used domestically. The Government continued to pay the drawback to millers covering the difference between 77½ cents and \$1.25 per bu. on wheat used in Canada for domestic consumption. This policy was changed in part, effective midnight Feb. 17, 1947, when the domestic price of wheat was increased to \$1.55 per bu. plus 3½ cents per bu. carrying charges, basis No. 1 Northern in store Fort William-Port Arthur. The subsidy to millers was increased at the same time so that the prevailing ceiling prices on flour, bread, millfeeds and other wheat products would not be affected by the increase in the domestic price of wheat. The main effect of the change was to increase the price of western wheat used for feed in Canada by 33½ cents

per bu. No further important changes in policy occurred until Sept. 15, 1947, when, in line with the Government's broad policy of decontrol, the ceiling prices on bread and flour were suspended. Effective midnight the same date, the Government discontinued the payment of the drawback on flour and wheat products milled or processed from wheat of Western Canada grain grades.

### *Production, Imports and Exports of Wheat, Years Ended July 31, 1939-48*

NOTE.—Wheat flour has been converted into bushels of wheat at the uniform average rate of 4½ bu. to the barrel of 196 lb. of flour.

Year ended July 31—	Production <sup>1</sup> '000 bu.		
		Imports of Wheat and Flour bu.	Exports of Wheat and Flour bu.
1939.....	360,010	1,891,177	160,034,188
1940.....	520,623	444,368	192,674,369
1941.....	540,190	122,036	231,206,246
1942.....	314,825	29,103	225,828,434
1943.....	556,684	3,022	214,700,902
1944.....	284,460	432,931	343,755,320
1945.....	416,635	404,547	342,945,515
1946.....	318,512	74,765	340,105,510
1947.....	413,725	15,584	242,542,925 <sup>2</sup>
1948 (third estimate).....	340,767	<sup>3</sup>	<sup>3</sup>

<sup>1</sup>Previous year's harvested crop. <sup>2</sup>Subject to revision. <sup>3</sup>Not available at time of going to press.

**Coarse Grains.**—Supplies of feed grains, particularly barley, reached a low ebb during the feeding season of 1946-47. Exports of both barley and oats were restricted. A large and growing demand for malting barley remained unsatisfied. In an effort to increase barley acreages the Government, on Mar. 18, 1947, increased the ceiling price of barley to 93 cents per bu. and of oats to 65 cents per bu., basis in store Fort William-Port Arthur or Vancouver. Support prices were advanced to 90 cents per bu. for barley and 61½ cents for oats, basis No. 1 feed at the Lakehead. The ceiling prices correspond with the support prices for the highest grades of barley and oats.

In the spring of 1947, western farmers increased their barley acreage by 1,200,000 acres over the 1946 level. Oat seedings, however, declined by 600,000 acres. Midsummer drought and heat adversely affected the development of the crop and the third estimate of production on Nov. 14, 1947, indicated a decline of 3,000,000 bu. in the western barley crop and a drop in western oat production of nearly 53,000,000 bu. from 1946 levels.

In Eastern Canada, particularly in Ontario, adverse spring seeding conditions resulted in sharply reduced sown acreages of oats and barley and the November production estimate for Ontario indicated declines below 1946 production figures of about 30,000,000 bu. of oats and 4,600,000 bu. of barley. Taking into consideration the carryover stocks of both oats and barley on July 31, 1947, which were below the comparable figures for the previous year, it is observed that supplies of Canadian oats and barley available for use during 1947-48 are 98,000,000 and 9,000,000 bu., respectively, below the available supply in 1946-47. Since a fairly general increase in

live-stock numbers was recorded on June 1, it would appear that a very tight feed situation for the winter of 1947-48 is in prospect, particularly in Eastern Canada. It is problematical whether sufficient feed-grain supplies will be available in the west to meet eastern demands.

In addition, competition of wheat and other commodities for the available supply of box cars during the winter will doubtless be keen, thus making more difficult the timely movement of feed grains from west to east.

On Sept. 13, the Canadian Wheat Board instructed the grain trade that, in accordance with advice from the Dominion Department of Agriculture, permits to export oats or barley either whole or ground (with certain minor exceptions) would not be approved during the 1947-48 crop year. The Department of Agriculture subsequently announced that the same export restrictions

*A broad program for the conservation and utilization of the water resources of the Prairie Provinces is well under way. This dam on the Bow River, Alberta, is one of a number of large water-storage projects that have been constructed. From these storage points, the water runs by gravity through large main canals and various smaller ones to innumerable ditches on the farms.*



apply to millfeeds, protein feeds of all kinds and commercial feeds. It is considered that export of live-stock feeds would seriously handicap the feeding of live stock and might force considerable liquidation of farm animals, the effects of which would be widespread not only to farmers but also to consumers generally, and might adversely affect the filling of current meat contracts with the United Kingdom.

With rye trading at very high prices on the Winnipeg grain exchange, western farmers stepped up their 1947 seedings of this crop by nearly 450,000 acres. The November estimate places the western rye crop at 11,600,000 bu. as against 7,300,000 bu. last year. The all-Canadian 1947 rye crop is placed at 13,200,000 bu. compared with a 1946 crop of 8,800,000 bu.

In an effort to stimulate the production of flaxseed, the Minister of Agriculture announced on Mar. 17, 1947, that the Government intended to authorize the Canadian Wheat Board to increase its buying price for that crop, effective on Aug. 1, 1947, to \$5.00 per bu., basis No. 1 C.W. in store Fort William-Port Arthur or Vancouver. With this incentive Canadian farmers seeded just under 1,500,000 acres to this crop and in the November estimate the probable production was placed at 11,500,000 bu.

### Acreage and Production of Field Crops, 1946 and 1947

Crop	3rd Estimate 1946 Crops			3rd Estimate 1947 Crops		
	Area	Production	Gross Farm Value <sup>1</sup>	Area	Production	Gross Farm Value <sup>1</sup>
Wheat.....	acres 24,076,100	bu. 413,725,000	\$ 472,644,000	acres 23,895,400	bu. 340,767,000	\$ 398,694,000
Oats.....	12,074,700	371,069,000	206,242,000	11,048,500	282,714,000	187,406,000
Barley.....	6,258,500	148,887,000	104,392,000	7,465,000	141,451,000	121,004,000
Rye.....	715,000	8,811,000	19,651,000	1,156,400	13,225,000	42,610,000
Peas, dry.....	126,600	2,333,000	6,860,000	127,900	1,797,000	5,184,000
Beans, dry.....	91,900	1,573,000	4,865,000	96,700	1,436,000	7,637,000
Buckwheat.....	217,500	4,881,000	4,789,000	290,400	5,274,000	6,231,000
Mixed grains..	1,317,900	53,031,000	35,358,000	1,150,400	35,700,000	33,115,000
Flaxseed.....	840,900	6,402,700	19,173,000	1,472,300	11,540,000	57,962,000
Corn, shelled..	251,700	10,661,000	11,269,000	176,200	6,682,000	14,460,000
	cwt.			cwt.		
Potatoes.....	520,500	47,963,000	82,721,000	497,400	44,623,000	88,870,000
Turnips, etc <sup>2</sup> ..	123,000	26,997,000	20,439,000	113,700	21,041,000	19,649,000
	tons			tons		
Hay and clover.	9,882,500	14,372,800	183,974,000	10,202,700	16,357,000	228,987,000
Alfalfa.....	1,263,300	2,732,000	37,422,000	1,135,100	2,559,000	38,345,000
Fodder corn....	460,800	3,970,000	16,711,000	475,100	-3,865,400	19,814,000
Sugar beets....	66,800	733,500	9,164,000	57,700	608,000	5,744,000

<sup>1</sup>First estimate of value.

<sup>2</sup>Excluding production in the Prairie Provinces.

### Live Stock

A substantial growth in the live-stock industry occurred in Canada during the war years as is shown in the following table. From the peak of 1943, hog numbers declined sharply to 4,900,000 head in 1946 but increased 11.5 p.c. to 5,500,000 head in 1947. The decline in cattle numbers amounted to about 10 p.c. since 1945. This decrease occurred between 1945 and 1946, and the 1947 figure was slightly above that of the previous year. Numbers of cattle on farms are still considerably above the pre-war figure. A continued decline

in sheep numbers has been taking place since 1944. The 1947 figure of 2,700,000 was slightly below that of 1939. The number of horses on farms has been declining for many years. A small upturn occurred between 1939 and 1942, but each year thereafter substantial declines have taken place.

#### **Numbers of Principal Species of Live Stock on Farms, June 1, 1939-47**

Year	Horses	Cattle	Hogs	Sheep and Lambs
	'000	'000	'000	'000
1939.....	2,761	8,374	4,364	2,911
1940.....	2,780	8,380	6,002	2,887
1941.....	2,789	8,517	6,081	2,840
1942.....	2,816	8,945	7,125	3,197
1943.....	2,775	9,665	8,148	3,459
1944.....	2,735	10,346	7,741	3,726
1945.....	2,585	10,759	6,026	3,622
1946.....	2,200	9,665	4,910	2,942
1947.....	2,032	9,718	5,473	2,707

#### **Poultry and Eggs**

During the war years, egg and poultry-meat production rose steadily to meet the unprecedented export and domestic demand. The number of domestic fowl (hens, cocks and chickens) on Canadian farms rose from 55,700,000 head in 1939 to 79,700,000 in 1944. There were small recessions in 1945 and 1946 to 77,500,000 and 76,900,000, respectively. Turkeys increased in numbers from 2,900,000 at June 1, 1939, to a peak of 4,200,000 in 1942, but have fluctuated since that time. On June 1, 1946, there were 2,600,000 turkeys on farms. Geese and ducks remained fairly steady throughout the period,

**A large sheep ranch near Del Bonita, Alta., with snow-capped peaks of the Rocky Mountains lining the horizon.**



being produced for home consumption only. Egg production showed an increase of 56·2 p.c. from 1939 to a peak in 1945 when 346,325,000 doz. eggs were produced. A decline of 8·5 p.c. was experienced in 1946.

### Poultry-Meat and Farm-Egg Production, by Economic Areas, 1945 and 1946

Economic Area and Year	Poultry-Meat Production			Egg Production		
	Marketed	Farm- Home Consumed	Total	Marketed	Farm- Home Consumed	Total <sup>1</sup>
	'000 lb.	'000 lb.	'000 lb.	'000 doz.	'000 doz.	'000 doz.
Maritimes.....	13,880	2,633	16,513	15,996	8,997	25,542
1945						
1946	14,747	2,718	17,465	14,498	8,076	22,991
Que. and Ont.....	105,445	30,133	135,578	130,480	42,996	175,321
1945						
1946	108,433	31,183	139,616	127,747	36,826	167,040
Prairies .....	92,413	26,187	118,600	77,796	37,755	117,810
1945						
1946	79,013	23,090	102,103	65,450	29,620	97,434
B.C. ....	11,181	2,696	13,877	24,176	3,456	27,652
1945						
1946	11,033	2,598	13,631	25,711	3,338	29,284
Totals..	222,919	61,649	284,568	248,448	93,204	346,325
1945						
1946	213,226	59,589	272,815	233,406	77,860	316,749

<sup>1</sup> Includes eggs for hatching on farms.

### Dairying

The expansion of dairying enterprises that developed during the war period reached a peak in 1945. Dairy production during this period was stimulated by the payment of producer-subsidies on butter-fat, fluid milk, milk for cheese and milk for concentration. Similarly, the demand for fluid milk was increased by the consumer-subsidy. This was removed on June 1, 1946, and on Oct. 1, 1946, payments of producer-subsidies on fluid milk and milk for concentration were also discontinued. On June 1, 1946, the Federal Government relinquished price control and, with the termination of producer-subsidies, the provincial authorities revised price schedules by orders or agreements which covered the subsidy, price increases over and above the subsidy, and in some cases gave price increases to producers over and above the amount represented by subsidy payments. The increases which went into effect on Oct. 1, 1946, added 1½ to 3 cents per quart to retail fluid-milk prices, while milk for concentration moved up in relation to higher ceiling prices ordered by the Wartime Prices and Trade Board.

**Milk Production.**—During 1946, 16,937,028,000 lb. of milk were produced on farms. The decline of approximately 689,744,000 lb. from the 1945 production was shared by all the provinces. Of the 1946 total production, 59·8 p.c. was used in the manufacture of dairy products. The quantity of milk used for creamery butter declined 7·6 p.c. and fluid sales increased 6·1 p.c.

**Butter Production.**—Butter production in 1946 showed a further decline from the peak of 1943. Since fluid milk was in greater demand and was in a preferred price bracket so far as the farmers were concerned, it was natural that the production of butter should suffer to some extent.

Range shelters and birds on a Nova Scotian poultry farm.



A group of ten-week-old Pekin ducklings.



Part of a flock of over 12,000 turkeys on a farm in southern British Columbia. These birds weigh from 25 to 30 lb. each, and are seven months old.



**Cheese Production.**—Cheese production in 1946 amounted to 148,060,000 lb., a decline of 21·9 p.c. from the 1945 production and of 11·4 p.c. from that of 1943. The cheese contract made with the United Kingdom for the year ended Mar. 31, 1946, called for delivery of 125,000,000 lb. but shipments exceeded that amount by over 5,000,000 lb.

**Income and Values.**—Dairy production proved to be one of the more profitable branches of farming during the war period. This situation arose as a result of the demand for milk and milk products, both for export and domestic use, and also as a result of the subsidies paid by the Government, which contributed considerably to the farm value of milk production. Total income from the sale of dairy products amounted to \$285,604,000 in 1946, an increase of approximately \$15,730,000 compared with that of the previous year. This represented 16 p.c. of the total farm income of Canada, as compared with 12 p.c. in 1939. Although prices were high, the quantities produced did not keep pace with the increased output in other lines of farming.

The total farm value of dairy production, which includes sales income, income in kind and milk fed to live stock, amounted to \$370,480,000 in 1946; the total value of dairy production, which comprises manufactured products and fluid sales valued at the factory, as well as products held on the farm, showed a total valuation of \$421,967,000. Both totals were higher than for 1945.

**Domestic Disappearance.**—The daily per capita consumption of fluid milk and cream on a milk basis was 1·01 pt. in 1946 as compared with 0·91 pt. in 1942. The annual per capita domestic disappearance of butter in 1946 (creamery, dairy and whey) was 25·64 lb.; due to rationing the consumption of creamery butter declined 15·1 p.c. from the 1942 figure. Cheese consump-



Cheese produced in Canada is mostly of the cheddar variety, but other types are being manufactured in increasing quantities. Here Blufort cheese is being salted and shelved. After ten days, the salted cheese stones are moved to a curing room where they are allowed to season before being sold.



*A herd of dairy cows feeding in a luxuriant growth of clover in Eastern Canada.*

tion, on the other hand, showed a continual increase from 1942, reaching 5.06 lb. per capita in 1945, but decreased to 4.15 lb. per capita in 1946. During the past six years, concentrated whole-milk products advanced from less than 10 lb. per capita to over 13 lb. in 1946. All products, in terms of milk, showed a decrease of 70 lb. per capita between 1945 and 1946, the total per capita consumption in the latter year amounting to approximately 1,174 lb.

#### *Dairy Production, by Economic Areas, 1945 and 1946*

Economic Area and Year	Milk		Milk Products			
	Fluid Sales	Total Milk	Butter		Cheddar Cheese	Evaporated Milk
			Creamery	Dairy		
Maritimes....	1945	239,899	1,096,643	19,143	7,569	2,246
	1946	241,190	1,066,987	17,799	7,742	1,642
Que. and Ont....	1945	2,845,866	10,968,592	165,691	15,583	175,549
	1946	3,016,257	10,460,809	154,381	15,567	134,378
Prairies .....	1945	623,532	4,920,247	102,772	28,495	8,213
	1946	671,232	4,772,831	93,856	29,283	6,800
B.C .....	1945	298,561	641,290	6,205	1,636	749
	1946	325,321	636,401	5,330	1,633	689
<b>Totals..</b>		<b>4,007,858</b>	<b>17,626,772</b>	<b>293,811</b>	<b>53,283</b>	<b>186,757<sup>1</sup></b>
		<b>1946</b>	<b>4,254,000</b>	<b>16,937,028</b>	<b>271,366</b>	<b>54,225</b>
						<b>143,509<sup>1</sup></b>
						<b>192,188</b>

<sup>1</sup> Total cheese production amounted to 189,473,000 lb. in 1945 and 148,060,000 lb. in 1946.



*Inspecting and gathering green tobacco leaves in southern Ontario. Almost the whole of Canada's tobacco crop is grown in that district.*

### *Special Crops*

**Tobacco.**—Continuing the trend that has been evident since 1943, the area planted to tobacco in 1947 was substantially greater than that of the previous season. The over-all acreage, including all types, is currently (October, 1947) estimated at 131,347 acres, of which 109,217 acres were planted to flue-cured tobacco. Burley tobacco ranks second in importance and the area in the 1947 season was 13,500 acres. The cigar tobacco acreage was estimated at 4,300 acres, followed by pipe tobacco at 2,250 acres and dark tobacco at 2,080 acres.

The great bulk of the crop is produced in Ontario where 119,880 acres were planted. The areas planted to tobacco in Quebec and British Columbia were 11,350 acres and 117 acres, respectively.

Pre-harvest estimates of production indicated that the crop would be the largest in the history of the industry. In August it was expected that 146,369,000 lb. would be harvested, but heavy frost in September reduced the yields in Ontario. The full extent of the damage, however, is still unknown.

**Sugar Beets.**—The acreage of sugar beets in 1947, estimated at 57,700 acres, as well as the yield, estimated at 10.54 tons per acre, was well below the 1946 level. The irrigated area of southern Alberta is the chief producing

district; in the 1947 season there were 29,200 acres under crop in that area. It is anticipated that 365,500 tons of beets will be handled by the two plants at present in operation, one at Raymond, the other at Picture Butte. Ontario is second in importance among the provinces as a sugar-beet producer, with a refining plant operating at Chatham. The acreage of beets in Ontario in the 1947 season was sharply reduced by unfavourable weather during planting and this, coupled with poor yields, reduced the harvest to 160,000 tons. Production in 1946 was estimated at 232,400 tons.

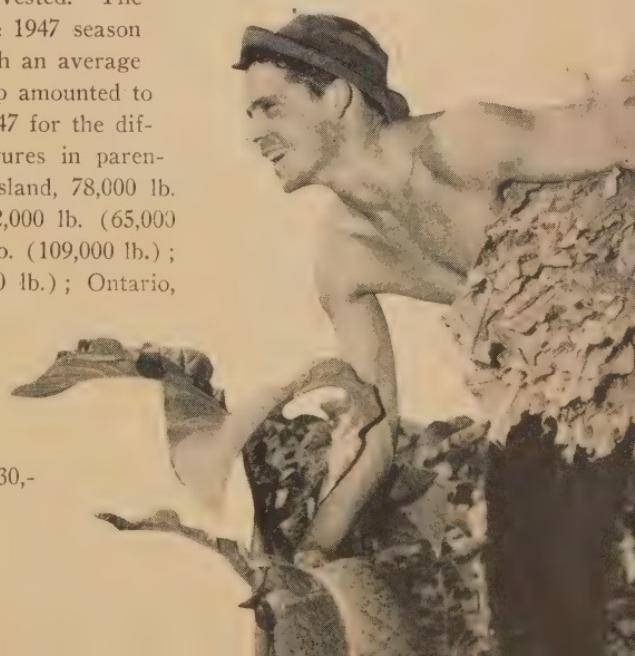
The Manitoba acreage in 1947 was also smaller than that of a year ago. The area harvested was 9,000 acres and yields averaged 8·0 tons per acre, giving a total crop of 72,000 tons. The Manitoba sugar refinery is located at Fort Garry. Production of sugar beets in Quebec is a recent undertaking and is not on a large scale. The producing area is located in the Eastern Townships and centres around the plant at St. Hilaire. There were 1,500 acres harvested in 1947, yielding 10,500 tons of beets.

There were 205,767,000 lb. of beet sugar produced from the 1946 sugar-beet crop. During the calendar year 1946, beet sugar represented 23 p.c. of the total of both beet and cane sugar manufactured in Canada.

**Maple Products.**—Approximately 80 p.c. of the production of maple products in Canada comes from the Province of Quebec. New Brunswick, Ontario and Nova Scotia contribute the remaining 20 p.c. Maple syrup is the most popular item of production and on the average makes up 89 p.c. of the crop. Maple sugar includes such items as maple cream, maple butter and la tire or maple wax, all of which have a ready though limited market.

The 1947 crop was the largest in many years. Weather conditions were more satisfactory than usual and producers tapped more heavily. Expressed as syrup, the total crop amounted to 3,923,000 gal. This was 83 p.c. more than was produced in 1946 and 55 p.c. more than the ten-year (1937-46) average of 2,526,000 gal.

**Honey.**—The 1947 honey crop which, according to the preliminary estimates, amounted to 41,862,000 lb. was the largest since 1938 when a record crop of 45,702,000 lb. was harvested. The average yield per colony in the 1947 season was set at 69 lb. compared with an average of 44 lb. in 1946, when the crop amounted to 23,975,000 lb. Production in 1947 for the different provinces, with 1946 figures in parentheses, was: Prince Edward Island, 78,000 lb. (15,000 lb.) ; Nova Scotia, 152,000 lb. (65,000 lb.) ; New Brunswick, 226,000 lb. (109,000 lb.) ; Quebec, 6,124,000 lb. (1,900,000 lb.) ; Ontario, 13,598,000 lb. (5,685,000 lb.) ; Manitoba, 7,732,000 lb. (4,-810,000 lb.) ; Saskatchewan, 5,802,000 lb. (3,953,000 lb.) ; Alberta, 6,820,000 lb. (6,192,-000 lb.) ; British Columbia 1,330,-000 lb. (1,246,000 lb.).



**Seed Crops.**—The production of hay and pasture seeds during the 1947 season, with the exception of crested wheat grass, western rye grass and bent grasses, was well above the ten-year (1937-46) average. The 1947 estimates with the ten-year averages in parentheses were: alfalfa, 9,728,000 lb. (6,400,000 lb.) ; alsike, 3,285,000 lb. (3,064,000 lb.) ; red clover, 7,593,000 lb. (5,076,000 lb.) ; sweet clover, 9,688,000 lb. (7,810,000 lb.) ; timothy, 12,687,000 lb. (9,420,000 lb.) ; brome grass, 7,570,000 lb. (7,144,000 lb.) ; crested wheat grass, 550,000 lb. (1,886,000 lb.) ; western rye grass, 105,000 lb. (108,000 lb.) ; Kentucky blue grass, 300,000 lb. (167,000 lb.) ; Canadian blue grass, 620,000 lb. (268,000 lb.) ; creeping red fescue, 566,000 lb. (219,000 lb.) ; bent grass, 2,000 lb. (8,400 lb.).

The vegetable-seed industry expanded rapidly during the war years but with the re-establishment of the European production centres and the increased competition for the United Kingdom market, production of many varieties is now declining. Preliminary estimates of production of garden seeds in 1947 with final estimates for 1946 in parentheses were: beet, 47,500 lb. (47,923 lb.) ; cabbage, 2,135 lb. (10,883 lb.) ; carrot, 76,500 lb. (174,950 lb.) ; cauliflower, 720 lb. (1,189 lb.) ; cucumber, 25,700 lb. (8,050 lb.) ; leek, 1,250 lb. (700 lb.) ; lettuce, 37,100 lb. (65,450 lb.) ; muskmelon, 1,100 lb. (1,570 lb.) ; onion, 73,550 lb. (235,505 lb.) ; parsnip, 2,900 lb. (12,330 lb.) ; peas, 16,458,500 lb. (16,023,700 lb.) ; pepper 145 lb. (335 lb.) ; pumpkin 1,200 lb. (2,505 lb.) ; radish, 23,850 lb. (151,800 lb.) ; spinach, 9,000 lb. (18,100 lb.) ; squash and marrow, 7,800 lb. (5,360 lb.) ; tomato, 1,000 lb. (4,820 lb.) ; watermelon, 600 lb. (475 lb.).

**Fruit.**—Commercial production of fruits in Canada is confined to five provinces: Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. Fruit is grown in the remaining four provinces, but due to climatic conditions production is on a very limited scale. British Columbia is the most important fruit-producing province, both from the standpoint of volume and of variety of fruit grown. Ontario ranks second, followed by Nova Scotia, Quebec and New Brunswick.

In 1947, early spring prospects for the fruit crop were excellent. There were indications that good crops would be produced in all provinces but continuous cold wet weather until July throughout Eastern Canada resulted in an unsatisfactory 'set' for tree and small fruit. The Nova Scotia apple crop and the stone-fruit crops in Ontario were particularly disappointing. The September estimates of production with the final estimates for 1946 in parentheses were: apples, 15,621,000 bu. (19,282,000 bu.) ; pears, 965,000 bu. (951,000 bu.) ; plums and prunes, 732,000 bu. (811,000 bu.) ; peaches, 1,728,000 bu. (2,145,000 bu.) ; cherries, 251,000 bu. (337,000 bu.) ; apricots, 146,000 bu. (147,000 bu.) ; strawberries, 24,978,000 qt. (17,412,000 qt.) ; raspberries, 13,727,000 qt. (13,240,000 qt.) ; loganberries, 1,768,000 lb. (1,637,000 lb.) ; grapes, 74,223,000 lb. (67,321,000 lb.).

Normally the United Kingdom is Canada's best market for apples but, due to the steps taken by the Government of that country to conserve dollar credits, it is not expected that any shipments will be made in 1947-48. On the other hand, by international agreement, a market for 3,000,000 bu. of apples is assured in the United States.

The Nova Scotia orchardists were hardest hit by the loss of the United Kingdom market. During the 1946-47 crop year shipments amounted to approximately 640,000 bbl. and in normal peacetime years approximately 60 p.c. of the crop moved to the United Kingdom. Although the 1947 crop is considerably smaller than that of the previous season, there is still a large volume of fruit for which no market is in sight. The Nova Scotia Apple Marketing Board expects to be able to market some 450,000 bbl., leaving a surplus of approximately 700,000 bbl. To remedy this situation, the Agricultural Prices Support Board proposes to purchase 200,000 bbl. and has set the minimum price to be paid to farmers at \$2.25 per bbl. for naked fruit, with not more than 35 p.c. cull apples, delivered for packing or processing.

**Values of Fruits Produced in Canada, 1943-46, with Five-Year-Averages, 1938-42**

Fruit	Five-Year Average 1938-42	1943	1944	1945	1946
	\$	\$	\$	\$	\$
Apples.....	11,068,000	16,814,000	22,807,000	12,857,000	27,196,000 <sup>a</sup>
Pears.....	971,000	1,462,000	2,007,000	1,582,000	2,278,000 <sup>a</sup>
Plums and prunes.....	514,000	1,133,000	1,375,000	1,270,000	1,755,000
Peaches.....	2,307,000	2,079,000	4,534,000	4,502,000	5,356,000
Apricots.....	167,000	102,000	489,000	319,000	446,000
Cherries.....	966,000	1,545,000	1,909,000	1,724,000	2,113,000
Totals, Tree Fruits....	15,993,000	23,135,000	33,121,000	22,254,000	39,144,000
Strawberries.....	2,088,000	3,337,000	2,303,000	4,186,000	4,498,000
Raspberries.....	1,220,000	2,708,000	2,682,000	3,147,000	3,364,000
Grapes.....	1,170,000	1,733,000	2,380,000	2,543,000	3,160,000
Loganberries.....	119,000	153,000	196,000	140,000	222,000
Totals, Small Fruits...	4,597,000	7,931,000	7,561,000	10,016,000	11,244,000
<b>Totals, All Fruits....</b>	<b>20,590,000</b>	<b>31,066,000</b>	<b>40,682,000</b>	<b>32,270,000</b>	<b>50,388,000</b>

Spraying pear trees against blossom blight in the Niagara Peninsula, Ont.





# Forestry

**T**HE total forested area of Canada is estimated to be 1,290,960 square miles. Forests occupy 38 p.c. of the total land area of the Dominion, and 58 p.c. of the land area of the nine provinces. The industry based on the forests and the statistics of those industries which are dependent on operations in the woods form the two main divisions of the following treatment.

## ★ *The Primary Forest Industries*

The lumber industry in Canada had its origin when the early pioneers began to make clearings for their settlements. At first the logs surplus to their needs were burnt but, as the requirements of the growing population increased and the supply of trees decreased, it became necessary to go farther afield for lumber. Under the French régime the industry remained a local one, chiefly because the demand from France was small. Despite this, some important contributions were made to the industry by the French. Local sawmills, run by water power, were developed and the methods of making up logs into booms and rafts and floating them down the rivers were worked out in those early days.

The British found their principal source of supply for shipbuilding in the colonies along the Atlantic seaboard, but after the American Revolution they sought new areas from which to obtain their materials. These they found in Canada, the white pine of New Brunswick being reserved at one time for masts and spars for the Royal Navy.

The rich forests of Quebec and Ontario bordering on the Ottawa River and its tributaries became the first important centre of the industry. Squared timber in these early times was rafted down the Ottawa and St. Lawrence Rivers to Quebec city for export. The Georgian Bay and Rainy River districts were later opened up and lumbering in the timbered areas of the Prairie Provinces progressed with the settlement of the Middle West. The development of the industry in British Columbia proceeded simultaneously with that in the western United States. To-day the forest industry is established from coast to coast and is rated the second largest primary industry in Canada.

**Forest Resources.**—The total saw material available is estimated to be 250,250,000,000 ft.b.m. of which 109,740,000,000 ft.b.m. is located in British Columbia. Of the total accessible small material, there are 186,290,000 cords available in British Columbia and 1,498,420,000 cords elsewhere in Canada.

It is estimated that nearly 70 p.c. of the total accessible stand comprises softwood species. By far the larger part of the world demand for wood is

for softwood, or coniferous species. Canada possesses the principal reserves of softwoods within the British Empire, and these include large supplies of the most desirable species—spruces, Douglas fir, western hemlock, western red cedar, and white, red and other pines. Hardwoods such as birches, maples and elms abound in the Eastern Provinces.

Ownership of more than 90 p.c. of the forest area of Canada is still vested in the Crown. However, all the forests in Prince Edward Island, 71 p.c. of those in Nova Scotia and 50 p.c. of those in New Brunswick are privately owned. In the early days of the industry, operations were developed on a scale that could not possibly have been supported over a prolonged period. Timber limits were worked without any particular plan, with the result that when the demand was great and prices were high there was over-expansion of the industry. To-day, the policy of the provincial forest authorities, under whose administration these resources are controlled and developed, permits expansion of the industry only where conditions are justified: the size of a plant is now restricted by the productive capacity of the area in which it operates. Licences are granted to private operators and are flexible enough to provide for different types of operation. For example, areas set aside for the great pulp and paper mills are granted for long periods of time, subject to certain basic requirements laid down by the Provincial Government concerned. In contrast to this, short-term licences are given to individuals to cut small quantities of wood. Operators may also be required to pay annual rental for the land occupied and fire protection taxes in addition to Crown dues assessed on each unit of wood cut.

**Eastern Canadian Woods Operations.**—The differences in soil, climate, topography and numerous other local conditions give rise to differences in logging methods not only between provinces but also between adjacent logging areas in the same province. In Eastern Canada, the widespread nature of the timber limits, the deep winter snow that enables logs to be transported easily to the rivers, the suitability of rivers after spring thaw for log-driving, and the sharp contrast in climatic seasons are at wide variance with conditions experienced on the West Coast.



A method of loading heavy logs on a truck, which has come into fairly common use in recent years.



*Pine logs dumped on a river in Eastern Canada, awaiting the spring break-up.*

The logging industry of the east is almost entirely seasonal and, so far as woods operations are concerned, depends on a seasonal labour supply. In fact, about 75 p.c. of the workers in the eastern industry are farmers who turn to logging operations in the winter season as a means of adding to their incomes at a time when they can be spared from agriculture. Other farmers work their own woodlots and produce quantities of fuelwood, pulpwood and logs which they sell to the mills. Before lumbering operations commence on a large scale, surveys of the areas to be logged must be made. These vary from the detailed scientific and systematic surveys, in which aerial photography plays an important part, to the visual estimates of the smaller licence holders where the "walking boss" or "timber cruiser" exercises his practised skill—often with amazing accuracy. Actual logging operations are usually carried on by mill owners or licensees of timber lands—often through the medium of contractors, sub-contractors and jobbers. Pulp and paper mills also conduct their own woods operations. However, there are still many pulpwood cutters who sell their output to the larger companies or even on the export market.

Camps are located conveniently within the cutting areas and are relatively permanent where the area to be cut is new and extensive. Sometimes portable camps are more suited to local circumstances and these are hauled in and out by truck or tractor. Some of these portable units may be very large and by their use the site of operations, even though fairly extensive, can be economically changed.

Living and working conditions in the camps have improved during the war years. Shortages of labour have had much to do with increased mechanization of the industry, a longer working year and all-around improvement of working and living conditions. The transportation of supplies to the

camps depends upon accessibility. When roads are available and open, supplies are often brought in during logging operations. This is not always possible, however, and in such cases it is necessary to have food and other supplies brought in during the late summer ready for the winter operations, or at times even during the previous winter. Saws, axes and wedges are the principal tools used in felling the trees and making logs. The modern chain saw is economical in labour and timber. A small crew can by this means fell many trees in a day, cutting them close to the ground and eliminating high stumps.

Although autumn and winter operations have long been a feature of the industry in the east, the construction of good roads in back country has encouraged logging in the summertime. Hardwood log production, particularly in accessible areas and with portable mills, is often carried on in the summertime as well as in the winter.

After the trees are felled, trimmed and cut into merchantable lengths, they are transported to lakes and rivers where, in winter, they are skidded onto the ice to await the spring break-up. Hauling in the winter depends on snow conditions. The roads are ploughed and iced to provide a solid bottom and are laid out previous to winter operations using natural grades wherever possible. The spring drive begins as soon as the ice is cleared sufficiently from the rivers to carry the logs on their way to the mills. However, where circumstances permit, autumn drives may take place on large rivers when there is an accumulation of logs from the previous spring drive.

River operations involve a certain amount of risk of loss or damage to logs. Flood waters may carry the logs back from the main river channel where they are left high and dry when the waters recede. In addition, logs suffer damage during the drive, owing to the character of the river and the number of rapids or falls. Several companies often conduct drives on the same river. They frequently find it to their advantage to co-operate in the financing of improvement and boom companies which are organized to aid the movement of logs down the river, and to build dams, sluices and other works. Logs carry the distinguishing mark or brand of the owner and are gathered together and sorted by the boom company before being rafted or boomed for towing to their respective mills.

The sawlogs, as a rule, are the property of mill owners and are not generally marketed in Eastern Canada but are converted into lumber by their owners. In more settled parts of the country, however, a considerable quantity of lumber is sawn by custom sawmills or small mills purchasing logs from the farmers. Pulpwood, poles, ties and other forest produce all find a ready market.

**West Coast Lumbering Operations.**—The accessible forest resources of the West Coast are made up predominantly of timber suitable for sawlog purposes so that the pulp and paper industry at the present time is of secondary importance in this part of the country as contrasted to its prominent position in the east. In fact, about 30 of the largest sawmills in Canada are on the West Coast and this small region produced, in pre-war years, about one-half of all the lumber cut in Canada. In contrast to this, British Columbia in 1945 accounted for 9·3 p.c. of the Canadian production of pulp and 7·7 p.c.

of newsprint and other paper. However, there is a trend now towards the utilization of smaller logs. When an area has been logged for lumber purposes by high-powered equipment, it has been found that the debris can be salvaged and that large quantities of wood can be economically recovered for pulpwood.

In the west the separate operations of logging and milling have for many years been carried on for the most part by different companies. Logging is undertaken by a group of men who lease a timber limit and remove and transport logs either to a middleman or directly to a sawmill for sawing into lumber. In this manner, the larger logging companies have built up very successful connections and are able to carry on in an extremely efficient manner.

Apart from the large lumber companies there is also an important independent logging industry in the west: in fact about 40 p.c. of the output of the West Coast is still produced by independent loggers. Small companies, depending entirely on motor-trucks, are able to haul lumber that could not be handled economically by the larger companies, which depend chiefly on railways for log transportation. On the other hand, the size of the logs and the necessarily extensive degree of mechanization make it difficult for the small operators to make the most of their limits. The wartime demand for lumber has had much to do with the construction of roads, thus opening up areas in the west which under peacetime conditions would not have been worked for a number of years to come.

Because of the nature of the terrain the usual practice in opening up a logging operation is to survey the area, run a logging railroad through the most convenient outlet valley and then work from the valley bottom up the mountain side. With the advent of trucks and better roads these have generally replaced the logging railroad as transport. To bring the fallen

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*Dump and booming ground for logs on the west coast of Vancouver Island, where log booms are made up for towing to the sawmill.*



trees down to the floor of a valley, cable systems—high-lead, sky-line or drag-line—are set up to drag the huge logs from stump to an assembly point. The logs are then transported by logging train or truck to tidewater where they are made up into large rafts or booms and towed sometimes for many miles along the coast to the mills. On arrival at the mill the logs are removed from the water and placed on a carriage operated by steam ram or cable rig, bringing the logs into contact with the saw. In the larger mills the head-saws are usually of the band type and these are often followed by band resaws. A few log gang-saws are in operation and there appears to be a growing interest in the introduction of this type of machinery for cutting up small logs. The logs are turned and held in the desired position by mechanical devices producing lumber of the sizes desired in quick successive operations. In some of the larger sawmills in British Columbia there may be more than one of these large log carriages. The lumber is then carried out on conveyer belts to other smaller saws which cut the lumber to desired specifications. After the cut lumber has gone through the various operations it is sorted, graded and marketed.

**Production.**—Although almost one-third of all the wood consumed in Canada is burnt as fuel, there is no organized fuelwood industry. More than 85 p.c. of the total amount used is produced by farmers either from their own woodlots or from nearby public lands. Two-thirds of the quantity cut is consumed on the farms, and the remainder is sold in the cities and towns.

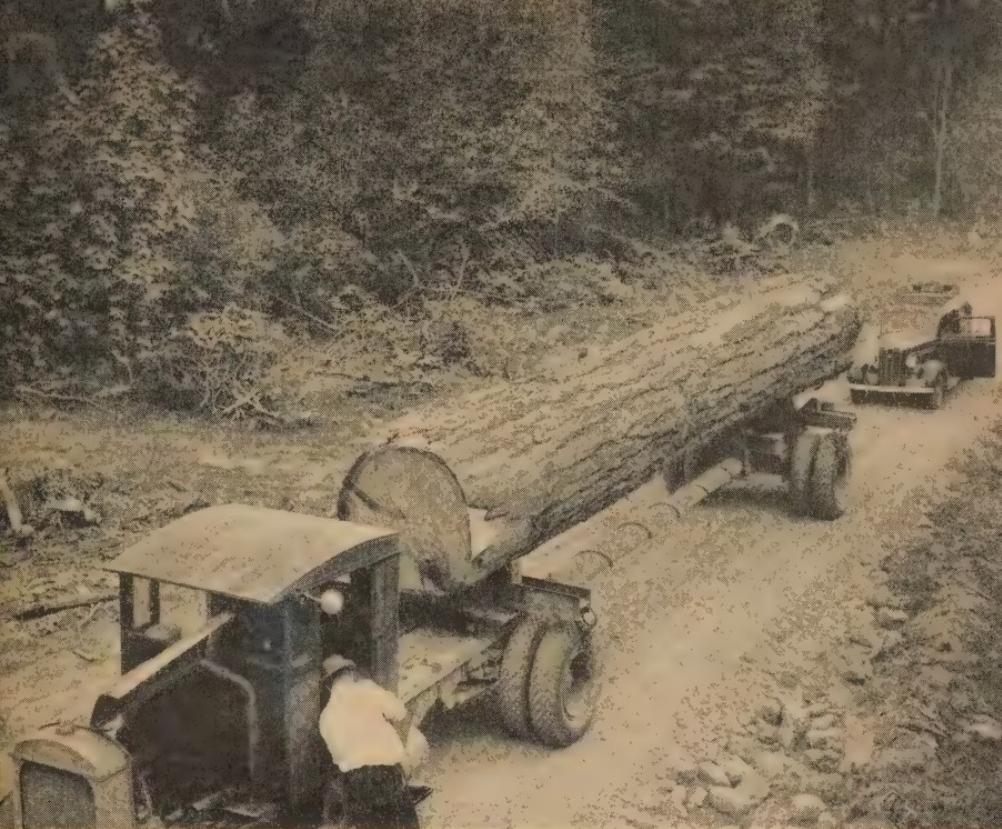
The sawmill industry is widely distributed throughout Canada. It is made up of 42 mills, each producing more than 15,000,000 ft.b.m. of lumber annually, 84 producing from 5,000,000 to 15,000,000 ft., 690 producing 1,000,000 to 5,000,000 ft. and over 4,000 small mills whose average production is less than 1,000,000 ft. annually.\*

In 1946 there were 113 pulp and paper mills in operation, employing 44,967 workers. Of this number 50 were located in Quebec, 43 in Ontario, 7 in British Columbia and 13 in the rest of Canada. The apparent total production of pulpwood for 1946 was 10,523,256 rough cords and of this amount 82 p.c. was manufactured into pulp in Canadian pulp mills, the remaining 18 p.c. was exported to the United States.

**Exports.**—In pre-war years Canadian lumber exports averaged 50 to 55 p.c. of total output. Wartime export quotas resulted in 40 to 45 p.c. being exported. In 1945, 4,514,160,000 ft.b.m. valued at \$181,045,952 were produced and of this amount 2,001,042,000 ft.b.m. valued at \$99,994,581 were exported. In the same year 3,324,033 tons of newsprint were produced, valued at \$189,023,736 and of this amount 3,058,946 tons valued at \$179,450,771 were exported.

**Current Position.**—The extraordinary demand for forest products caused by the War showed no sign of abating in 1947. Requirements for housing and other forms of construction at home, together with increased exports, provided a stimulus for continued high production. Stocks, however, which fell to a relatively low level during the War, depend on the judgment of industry and its ability to maintain them. Post-war conditions have militated against

\* Latest statistics available are for 1945, see p. 105.



*Hauling a western fir log by truck in British Columbia.*

any effort to improve the situation despite the efforts of both industry and Provincial Governments to facilitate the transition from unrestricted exploitation to sustained-yield woodlands management.

### ★ *Forestry Statistics*

**Operations in the Woods.**—Woods operations produce not only the raw material for the sawmills, pulp-mills, wood distillation, charcoal, excelsior and other plants, but they also provide logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts and fence rails, mining timber, piling and other primary products, which are finished in the woods ready for use or exportation. There are also a number of minor forest products, such as Christmas trees, maple sugar and syrup, balsam gum, resin, cascara, moss and tanbark, that go to swell the total value of the products of woods operations.

It is often impossible to state for what purpose the timber being cut will eventually be used. Some lumber manufacturers install machinery for cutting-up and barking pulpwood, and direct a part of their spruce and balsam logs to pulp manufacture; other pulp and paper companies operate sawmills in connection with their plants for the purpose of utilizing the larger timber on their limits.

It has been estimated that operations in the woods in Canada in 1945 gave employment during the logging season amounting to 36,558,000 man days, and distributed over \$209,000,000 in wages and salaries.



A large sawmill at Braeside, Ont. The log booms are in position for servicing the mill on the water's edge—more conspicuous are the stock piles of lumber after cutting, sorting and grading.

#### Value of the Products of Woods Operations, by Products, 1941-45

Products	1941	1942	1943	1944	1945
	\$	\$	\$	\$	\$
Logs and bolts.....	86,514,625	92,897,611	99,852,479	115,788,036	120,682,306
Pulpwood.....	88,193,045	103,619,151	110,844,790	124,363,926	146,172,701
Firewood.....	26,662,296	27,264,486	45,152,897	44,332,748	45,193,219
Hewn railway ties.....	1,547,780	878,830	1,138,663	1,289,165	1,339,920
Poles.....	2,467,336	2,663,603	2,032,681	5,217,255	5,663,793
Round mining timber	2,458,435	2,169,268	3,418,857	3,509,015	6,437,074
Fence posts.....	964,568	1,291,393	1,902,546	2,216,585	2,690,569
Wood for distillation..	588,747	745,408	774,344	887,260	687,102
Fence rails.....	262,521	341,607	464,365	513,135	367,741
Miscellaneous products.....	3,503,736	2,500,534	3,033,661	3,453,698	5,090,476
<b>Totals.....</b>	<b>213,163,089</b>	<b>234,371,891</b>	<b>268,615,283</b>	<b>301,570,823</b>	<b>334,324,901</b>

**Sawn Lumber.**—Conifers usually form about 95 p.c. of the total cut of all kinds of wood, only 5 p.c. being deciduous-leaved trees or hardwoods. Spruce is the most important kind of lumber sawn, and is produced in every province. Douglas fir, which is produced almost entirely in British Columbia, comes second, with hemlock, white pine, cedar, and yellow birch next in order of importance.

Besides sawn lumber from the sawmills the industry includes the products of shingle, tie, lath, shook, stave, heading and hoop mills and the products of mills for the cutting-up and barking of pulpwood. Sawn lumber produced in 1945 amounted to 4,514,160,000 ft. valued at \$181,045,952. Shingles numbered

2,065,432 squares at \$11,737,224, sawn ties 6,340,176 at \$6,486,261 and lath 117,731,000 at \$752,245. The gross value of production for the industry as a whole showed an increase of 6.7 p.c. over the total for 1944.

### *Production of Sawn Lumber and All Sawmill Products, 1945*

Province or Territory	Sawn Lumber Production		Total Sawmill Products
	'000 ft. b.m.	\$	\$
Prince Edward Island.....	8,885	344,731	407,865
Nova Scotia.....	250,795	10,075,523	11,395,270
New Brunswick.....	269,375	12,143,966	14,640,642
Quebec.....	1,029,313	45,790,905	56,109,217
Ontario.....	522,497	23,825,561	29,705,850
Manitoba.....	63,453	2,364,945	2,493,378
Saskatchewan.....	125,082	4,227,527	4,632,856
Alberta.....	189,412	5,897,668	6,729,682
British Columbia.....	2,055,082	76,354,956	104,972,850
Yukon.....	266	20,170	20,420
<b>Totals.....</b>	<b>4,514,160</b>	<b>181,045,952</b>	<b>231,108,030</b>

**Pulp and Paper.**—The production of pulp and its conversion into newsprint and other paper products is one of Canada's major manufacturing enterprises. Canada's extensive pulpwood resources and widely distributed water powers have been largely responsible for the remarkable development of the industry. From the early 1920's until 1941, the pulp and paper industry headed the lists in net value of production and in wage and salary distribution. From 1942 to 1944 some of the war industries surpassed it in these respects, but in 1945 it recaptured first place for net value of products and it appears to have regained in 1946 the top position for wage and salary distribution. In these comparisons only the manufacturing stages of the pulp and paper industry are considered, no allowances being made for employment furnished, payroll, or production of operations in the woods.

The volume of pulp and paper produced in 1946 was the highest ever recorded, and new peaks were also reached for gross and net values of production, employment, salaries and wages paid, cost of materials used, cost of purchased fuel and electricity, and power equipment used. The gross value of production in 1946 was 32.3 p.c. over the previous record of 1945 and an increase of 116.3 p.c. over 1929. Figures from 1935 are:—

	Gross Production	Net Production		Gross Production	Net Production
	\$	\$		\$	\$
1935.....	159,325,546	79,199,741	1941.....	334,726,175	174,852,041
1936.....	183,632,995	86,406,163	1942.....	336,697,277	164,500,420
1937.....	226,244,711	106,002,017	1943.....	344,411,614	164,244,088
1938.....	183,897,503	89,034,186	1944.....	369,846,086	174,492,103
1939.....	208,152,295	103,123,660	1945.....	398,804,515	180,401,885
1940.....	298,034,843	158,230,575	1946.....	527,814,916	258,164,578

There were, in 1946, three classes of mills in this industry: 31 making pulp only, 56 combined pulp and paper mills, and 26 making paper only. The 87 mills making pulp produced 6,615,410 tons valued at \$287,624,227, repre-

senting increases of 18.1 p.c. in quantity and of 24.0 p.c. in value over 1945. About 75 p.c. by quantity was made in combined mills and used by them in papermaking and about 25 p.c. was made for sale in Canada and for export.

Two pulping methods are used. The mechanical process, in which the wood is reduced to fibre by pressing against large revolving grindstones, produces groundwood pulp. In the chemical process small chips of wood are cooked at high temperature and under pressure in a chemical liquor. The type of mixture of pulp employed determines the character of the paper produced. Newsprint is composed of about 85 p.c. groundwood and 15 p.c. unbleached sulphite.

Production of pulp during the past ten years is given in the following tables.

### *Pulp Production, Mechanical and Chemical, 1937-46*

Year	Mechanical Pulp		Chemical Fibre		Total Production <sup>1</sup>	
	Quantity	Value	Quantity	Value	Quantity	Value
tons	\$	tons	\$	tons	\$	
1937.....	3,384,744	46,663,759	1,756,760	70,065,469	5,141,504	116,729,228
1938.....	2,520,738	39,707,479	1,147,051	48,189,669	3,667,789	87,897,148
1939.....	2,796,093	43,530,367	1,370,208	53,601,450	4,166,301	97,131,817
1940.....	3,368,209	56,017,547	1,922,553	92,987,720	5,290,762	149,005,267
1941.....	3,550,285	61,749,788	2,170,562	113,689,763	5,720,847	175,439,551
1942.....	3,308,118	65,208,919	2,298,343	126,936,143	5,606,461	192,145,062
1943.....	3,033,751	63,721,703	2,239,079	130,797,449	5,272,830	194,519,152
1944.....	3,113,142	72,097,231	2,157,995	138,944,181	5,271,137	211,041,412
1945.....	3,380,873	86,723,425	2,219,941	145,149,697	5,600,814	231,873,122
1946.....	4,122,046	113,599,526	2,493,364	174,024,701	6,615,410	287,624,227

<sup>1</sup> Certain of the totals include unspecified pulp.

### *Pulp Production, by Chief Producing Provinces,<sup>1</sup> 1937-46*

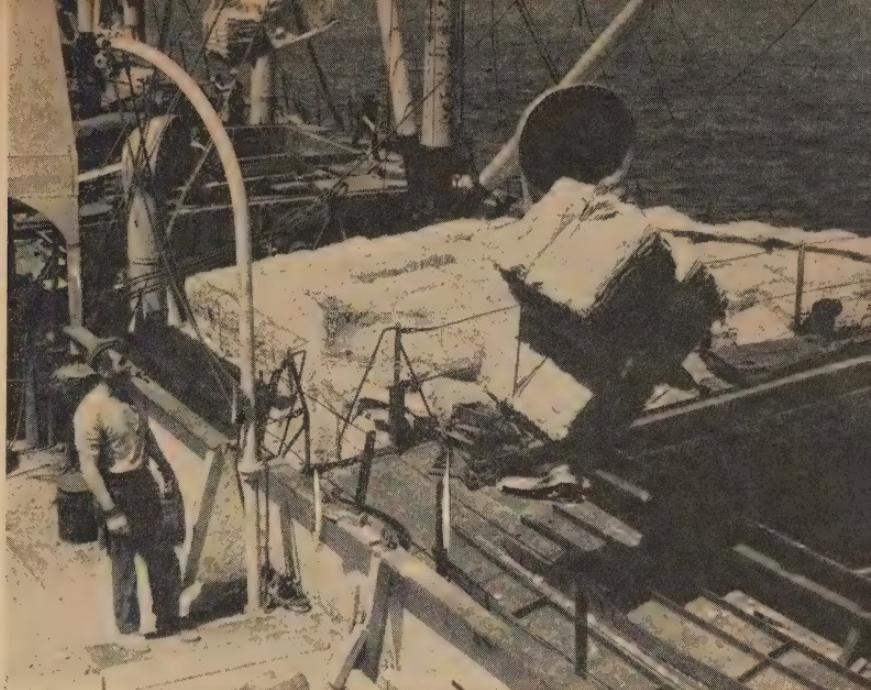
Year	Quebec		Ontario		British Columbia	
	Quantity	Value	Quantity	Value	Quantity	Value
tons	\$	tons	\$	tons	\$	
1937.....	2,551,546	55,277,014	1,466,555	33,964,784	425,558	8,995,594
1938.....	1,858,971	44,220,224	1,057,984	25,821,023	242,020	4,456,691
1939.....	2,119,183	49,026,966	1,158,576	27,631,051	321,132	6,197,175
1940.....	2,794,384	76,996,100	1,369,389	38,235,733	445,564	12,109,948
1941.....	2,971,386	89,103,399	1,507,324	46,908,967	508,375	14,875,937
1942.....	2,896,440	97,632,408	1,518,967	51,936,704	481,294	16,243,737
1943.....	2,617,403	94,054,176	1,490,966	54,818,046	450,009	17,543,397
1944.....	2,767,081	105,042,991	1,316,365	54,934,993	489,690	19,739,476
1945.....	2,887,176	114,197,036	1,468,682	62,596,260	520,571	21,998,381
1946.....	3,460,853	140,930,891	1,837,975	84,049,038	520,779	24,216,820

<sup>1</sup> Production in other provinces (Nova Scotia, New Brunswick and Manitoba) may be obtained by subtraction from total production figures given in preceding table.

Newsprint made up 77.8 p.c. of the total production of Canada's 82 paper mills in 1946; paper boards 12.8 p.c.; book and writing paper 3.5 p.c.; wrapping paper 3.3 p.c.; and tissue and miscellaneous papers the remainder.

Many Canadian pulp and paper mills not only manufacture basic paper and paperboard stock but also convert this stock into more highly manufactured

Canadian paper pulp being transferred from a small to a larger vessel at Halifax for shipment to Europe.



products such as napkins, towels, packaged toilet papers, coated and treated papers, boxes, envelopes, stationery, and other cut paper and boards. Figures covering this conversion are not included here.

#### Newsprint and Total Paper Production, 1937-46

Year	Newsprint Paper		Total Paper	
	Quantity	Value	Quantity	Value
			tons	\$
1937.....	3,673,886	126,424,303	4,345,361	175,885,423
1938.....	2,668,913	107,051,202	3,249,358	151,650,065
1939.....	2,926,597	120,858,583	3,600,502	170,776,062
1940.....	3,503,801	158,447,311	4,319,414	225,836,809
1941.....	3,519,733	158,925,310	4,524,776	241,450,292
1942.....	3,257,180	147,074,109	4,231,767	230,269,512
1943.....	3,046,442	152,962,868	3,966,344	234,036,152
1944.....	3,039,783	165,655,165	4,044,376	255,545,841
1945.....	3,324,033	189,023,736	4,359,576	282,837,614
1946.....	4,162,158	280,809,610	5,347,118	396,956,390

Canada's newsprint production in 1946 was over five times that of the United States, not so very long ago the world's chief producer. The latest monthly figures of Canadian newsprint production indicate that output in 1947 will exceed the record established for 1946.

1947—	tons	tons	tons
January.....	370,000	May.....	384,520
February.....	341,268	June.....	355,606
March.....	372,482	July.....	379,731
April.....	369,490	August.....	377,941

For 1946, exports of newsprint amounted to 3,858,467 tons valued at \$265,864,969 and ranked first among the exports of the Dominion.

# Fisheries

**T**H E Canadian fishing industry while nationally not as important as agriculture and other primary industries from the standpoint of value of products and numbers of men employed, is, nevertheless, of vital importance to the economy of the Atlantic Coast provinces and British Columbia. In the Atlantic Coast provinces particularly, where general economic conditions have tended to be less buoyant than in other areas of the Dominion, any diminution of activity in the fishing industry has a profound effect on the whole economy of the area.

The Atlantic Coast fishery had its beginnings even before the discovery of Canada when European fishermen came to exploit the banks of Nova Scotia for cod. Cod has remained throughout the years the mainstay of the Atlantic fishery, although from the standpoint of value of the catch, the lobster fishery has approached and, in some years, exceeded that of cod. The herring and sardine fisheries of the Atlantic Coast are also of major importance. From a more localized point of view, many other species of fish are of commercial importance. Each individual species may be processed in a variety of forms and marketed as fresh, frozen, salted, pickled, smoked or canned.

Except for the deep-sea ground fishery prosecuted on the offshore banks by fishing schooners, vessels and trawlers operating out of Halifax, Lunenburg, Lockeport, Shelburne, North Sydney and other ports, the Atlantic Coast fisheries are mainly carried on by independent fishermen operating relatively small boats or fixed nets close to the shore. The industry has tended, therefore, to be organized on the basis of many isolated small-scale units with a relatively small investment in capital equipment. The fresh fish branch of the industry is concentrated generally in the larger ports served by the offshore vessels. Greater availability of capital has resulted in a higher degree of modernization of this branch of the industry than in the others where capital has been a limiting factor.

The salted fish branch of the industry is mainly based on the small-scale operations of shore fishermen who follow the traditional curing methods of their forefathers. However, the introduction of modern artificial driers has to a considerable extent replaced in recent years the open-air drying on flakes. The canning branch of the industry, with the exception of a few large-scale producers, is still carried on by a large number of small independent or co-operative cannneries, located in the smaller fishing communities.

During the war years the fresh, and particularly the frozen fish branch of the industry, expanded markedly in the use of raw materials, mainly at the expense of the salted fish trade. The wartime requirements of the United Kingdom were responsible for the increased demand for the frozen filleted product. The canned fish branch was also expanded to meet wartime

and relief requirements. In 1947, with the restoration of the northeastern Atlantic fishery, the European demands for frozen fish were sharply reduced. The production of Newfoundland, and to some extent that of Iceland, sought entry into the United States market in competition with the Canadian product. As a result, prices weakened, although the generally higher prices of foods in the United States were a sustaining factor. The markets for salted fish remained strong with the result that the proportion of the catch utilized for salting increased considerably, while that disposed of as fresh and frozen declined. Relief requirements maintained the market for the canned product.

Salmon is the dominant species taken on the Pacific Coast. For the most part, the salmon is canned for market, although an increasing proportion of the catch is being sold in the frozen form, both dressed and as fillets. Halibut stands second to salmon in importance on a landed-value basis, although herring usually exceeds halibut on a value-of-product basis. Grayfish livers, used in the production of oils, and pilchards, used mainly for fish meal, are of importance on the Pacific Coast. In the past two years landings of pilchards have been abnormally low.

On the Pacific Coast the industry has tended to become centralized in the hands of a relatively small number of large-scale processors. These companies operate fish-processing plants in the Vancouver area, at Victoria, Prince Rupert and at many points along the coast. Frequently an individual company will have more than one plant which it may operate only periodically, depending on the availability of fish supplies. These companies have the necessary capital to finance modern processing and fishing equipment. While substantial quantities of fish are taken by independent fishermen owning their own boats and gear, particularly gill-netters and trollers, a very large proportion of the total catch, especially of salmon, herring and pilchards, is taken by large vessels owned by the processing companies and operated on a share basis by the fishermen. The organization of the fishing economy on the Pacific Coast, therefore, has made it possible to take advantage of modern methods of fishing and modern methods of processing. The fishermen themselves on the Pacific Coast are highly organized into strong unions. Prices paid to fishermen and other operating conditions are negotiated between the



A British Columbia salmon comes aboard. This fish was caught on a troll line, but much the larger part of the salmon catch is taken by means of gill-nets and purse-seines.

unions and the management of the fish-processing plants. The co-operative movement has also grown to considerable proportions on this coast, covering not only the production of fish, but also the co-operative marketing of fresh and frozen fish products, and fish-liver oils. So far the co-operatives have not extended their operations into the canning branch of the industry.

The more important species of inland fish include whitefish, trout, pickerel, tullibee, and lake herring. The inland fisheries extend throughout the northern areas of Manitoba, Saskatchewan and Alberta, as well as the Great Lakes region and the northern lakes of Ontario.

The organization of the inland fisheries differs somewhat as between the Prairie Provinces and Ontario. In the Prairie Provinces, the fishing activity takes place mainly in the more or less remote northern lakes. In Manitoba and Alberta, dealers and exporters, located in Winnipeg and Edmonton, undertake the major part of the financing of the fishermen in those two provinces. In Saskatchewan, recent developments under the Saskatchewan Fish Marketing Board, have altered the production and marketing program of that Province to a considerable extent. The Board purchases the fish from fishermen on an initial payment basis with subsequent payments depending on the market returns for the fish products. The Board operates three filleting plants where considerable quantities of fish are filleted and frozen. In the more northern lakes, private dealers purchase the fish directly from the fishermen, and in many cases assist them in the financing of their operations. In Ontario the Great Lakes fishery is the most important from a commercial standpoint, although substantial quantities of fish are taken in the lakes of the northwestern part of the Province. Production of the Great Lakes is marketed almost entirely in the fresh form with a relatively small quantity filleted and smoked.

The total landings of fishery products in Canada during 1946 amounted to about 1,300,000,000 lb., having a landed value of about \$65,000,000, and a marketed value of approximately \$125,000,000. The inland fisheries of Ontario and the Prairie Provinces account for about 100,000,000 lb. of fish annually. The remainder of the catch is divided about equally between the Atlantic and Pacific Coasts.

The year 1946 was one of high returns to all branches of the industry. The catch of most species was good, and a ready market at wartime prices was available for all the products of the industry. The fishing industry is dependent to a very large degree on the export market and, consequently, is very sensitive to changes in world economic conditions. Continued high employment and consumer purchasing power in the United States, together with abnormally high prices for competing protein foods, such as meat, has maintained the fresh and frozen branch of the industry in a reasonably strong position, although there have been some indications of a diminishing demand. Canned fish of the more favoured species, such as salmon, sardines and lobster, have tended to enjoy a high level of demand, although prices of canned lobster have receded considerably as a result of consumer resistance to the very high prices that prevailed in 1946. Other varieties of canned fish, such as Atlantic chicken haddie, mackerel and herring, and Pacific herring, have found a ready market under the various relief programs.

Salted fish, produced essentially for the markets of the Caribbean and Latin America, has enjoyed several years of relatively strong demand and



*British Columbia salmon fishing boats, some of them gill-netters and some of them trollers, tied up at a shore plant.*

high prices. During the war years, supplies normally furnished by Norway and Iceland were not available to the traditional markets. Even in the years immediately following the War, supplies have continued to be low relative to market demand. Consequently, prices have remained firm. Economic conditions in the countries of the Caribbean area, which are largely dependent on exports of other primary products, particularly sugar, have remained strong. Salted fish is a staple item in the diet of the people of this area, serving as a source of both protein and salt. Hence, it is unlikely that the quantitative demand will greatly diminish. However, financial difficulties in the importing countries is a further factor affecting Canadian exports.

Estimates for the first eight months of 1947 indicate that, although total landings may not fall far short of 1946, substantial changes will be recorded for individual species. The landings of cod on the Atlantic Coast, including Quebec, are sharply lower, partly as a result of the strike which tied up the offshore vessels for the first three months of the year and partly due to reduced fishing efforts following the lowering of market prices early in the year. The catch of lobster will also be somewhat lower, largely as a result of unfavourable fishing weather. On the Pacific Coast landings of the major species, salmon and halibut, have been running above those of 1946.

From a marketing point of view, the transition from wartime to peacetime conditions in the fisheries has been postponed to a large extent through continued world shortages and abnormal export demands for foods. The Canadian Government relief program, following that of UNRRA, has maintained the market for those types of fishery products, the production of which was expanded to meet military and other wartime requirements. However, some weaknesses did appear in the marketing picture during the early months of 1947, particularly in the Atlantic Coast area where the diminution in the purchasing of frozen fillets by the United Kingdom resulted in a general reduction of prices to fishermen. It will be recalled that the fishing industry, particularly on the Atlantic Coast, suffered a prolonged period of depressed conditions prior to the outbreak of war in 1939. The memory of this period still dominates the thinking of many associated with the industry.

## ★ Statistics of Production

Canada's list of food fishes embraces nearly 60 different kinds, chief among which are salmon, cod, herring, lobster, whitefish, halibut, sardines, mackerel, pickerel, grayfish and haddock. The total quantity of fish of all kinds taken by Canadian fishermen in 1945 was 13,391,629 cwt., for which fishermen received, at the point of landing, a total of \$64,138,349 compared with a catch of 11,791,456 cwt. with a landed value of \$52,078,439 in 1944. The figures given in the following table are the values of all fisheries products marketed, both primary and secondary.

*Fisheries Production, by Provinces, 1914, 1944 and 1945*

Province or Territory	Values of Production			Percentages of Total Values		
	1914	1944	1945	1914	1944	1945
	\$	\$	\$	p.c.	p.c.	p.c.
Prince Edward Island..	1,261,666	2,598,975	3,076,811	4·1	2·9	2·7
Nova Scotia.....	7,730,191	23,674,055	30,706,900	24·7	26·5	27·0
New Brunswick.....	4,940,083	11,968,692	13,270,376	15·8	13·4	11·7
Quebec.....	1,924,430	5,361,567	7,907,692	6·2	6·0	6·9
Ontario.....	2,755,291	4,938,193	7,261,661	8·8	5·5	6·4
Manitoba.....	849,422	3,581,795	4,263,670	2·7	4·0	3·7
Saskatchewan.....	132,017	1,482,223	1,286,361	0·4	1·7	1·1
Alberta.....	86,720	929,887	1,450,502	0·3	1·0	1·3
British Columbia.....	11,515,086	34,900,990	44,531,858	36·8	39·0	39·1
Yukon.....	69,725	3,131	3,138	0·2	—	—
Northwest Territories.....	1	1	112,131	—	—	0·1
<b>Totals.....</b>	<b>31,264,631</b>	<b>89,439,508</b>	<b>113,871,100</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>

<sup>1</sup> Not collected before 1945.

The salmon fishery of British Columbia gives to that Province first place in respect to value of production, the position that in earlier times belonged to Nova Scotia with her cod fishery. The herring fisheries (on both the Atlantic and Pacific Coasts) are of rising importance and second only to salmon in value of output in British Columbia; canned herring is the chief product, but herring meal and oil are also produced. On the Atlantic Coast, the cod, lobster and sardine fisheries are of importance, while among the inland fishes, whitefish occupies first place.

**Unloading and  
weighing codfish  
and livers landed  
from Atlantic  
coastal waters.**



**Averages of Production and Values Marketed, by Principal  
Kinds of Fish, 1935-39 and 1941-45**

Kind of Fish	Averages 1935-39		Averages 1941-45	
	Quantity Caught	Value Marketed	Quantity Caught	Value Marketed
			cwt.	\$
Salmon.....	1,769,319	13,435,975	1,530,829	20,484,817
Cod.....	1,620,056	3,159,882	2,268,881	12,994,332
Herring.....	2,773,682	2,643,737	3,360,127	10,900,403
Lobsters.....	308,448	4,194,228	312,933	7,896,045
Whitefish.....	156,919	1,643,670	175,848	3,547,391
Halibut.....	153,691	1,646,448	143,830	2,978,763
Sardines..... bbl.	219,184	1,630,962	382,550	2,866,847
Mackerel.....	286,702	571,564	354,001	1,945,342
Pickerel.....	129,505	970,781	137,446	1,962,132
Grayfish.....	142,858	88,652	86,838 <sup>1</sup>	2,034,498
Haddock.....	387,801	1,287,394	287,828	2,048,371

<sup>1</sup> Four-year average for quantity—only livers landed in 1945.

The fish-processing industry is connected almost entirely with the sea fisheries, the plants being scattered along the coasts in locations of easy accessibility to the fishermen in delivering their catches. Salmon canneries comprise the principal group, having an investment in 1945 valued at \$12,248,403, or 36 p.c. of the total for all establishments. About 59 p.c. of the value of production was in the form of fish canned, cured or otherwise prepared, and 41 p.c. fish marketed for consumption in the fresh state.

Capital invested in vessels, boats, nets, traps, piers and wharves, etc., used in the primary operations of catching and landing fish, had a total value in 1945 of \$40,943,579, of which 82 p.c. was accredited to the sea fisheries.

# Furs

THE fur resources of Canada are among its most valuable assets, and though, with the advance of settlement, trapping has moved farther and farther northward and the practice of fur farming has developed considerably, wild life still produces the greater portion of Canadian furs. Over an area of about 1,550,000 square miles, which is about 45 p.c. of the total land area of Canada, wild life is relatively more productive than agriculture, and of the products of wild life, furs are the principal item and the principal support of the population of that area.

The conservation of fur-bearers, which has marked the policy of Federal and Provincial authorities to an increasing extent, has been made necessary by an increasing demand for furs coupled with decreasing supplies. The resulting substantial rise in prices also brought about a tendency to 'over-trapping', and it has been found necessary to control the 'take' by prohibition, close seasons and the enforcement of trapping regulations. However, in a country of such extent, where trappers, both White and Indian, are scattered over a vast wilderness, prohibition of capture of certain animals with the aim of conserving future catches is not always effective. Such furs become higher priced because of this scarcity and the temptation to violate protective measures is great.

One noteworthy reconstructive measure that appears to have had a very beneficial influence on the rehabilitation of certain fur-bearers, especially beaver and muskrat, is the organized development of marshlands where these animals are actively assisted to increase their numbers in their natural habitat.



Examining beaver skins brought to a Hudson's Bay Company post by Indian trappers.

All provinces to-day have their trapping regulations and licence individual trappers. Some provinces register trap lines. The Saskatchewan Government has recently inaugurated a system whereby districts are assigned to individual licensed trappers. The licensee in his own interests will see to it that poaching on his preserve is stopped.

Many of the most valuable fur-bearing animals are subject to marked fluctuations in numbers. The periods of abundance and of scarcity recur with sufficient regularity to be called cycles and these cycles have an important bearing on the pelt take year by year. The total number of pelts taken, including those from fur farms, in each of the past ten years is shown in the following table.

#### *Numbers and Values of Pelts Taken, Years Ended June 30, 1937-46*

Year Ended June 30	Pelts		P.C. of Value Sold from Fur Farms	Year Ended June 30	Pelts		P.C. of Value Sold from Fur Farms
	Number	Value			Number	Value	
	\$		\$				
1937.....	6,237,640	17,526,365	40	1942.....	19,561,024	24,859,869	19
1938.....	4,745,927	13,196,354	43	1943.....	7,418,971	28,505,033	24
1939.....	6,492,222	14,286,937	40	1944.....	6,324,240	33,147,392	28
1940.....	9,620,695	16,668,348	31	1945.....	6,994,686	31,001,456	31
1941.....	7,257,337	21,123,161	27	1946.....	7,593,416	43,870,541	30

Ontario is the leading province in respect to value of fur production. The relation that the value in each province and territory bore to the total for Canada in the year ended June 30, 1946, was: Ontario, 24·7; Quebec, 17·0; Manitoba, 14·8; Alberta, 11·8; Saskatchewan, 8·4; British Columbia, 7·8; Northwest Territories, 6·3; Prince Edward Island, 2·7; Nova Scotia, 2·6; New Brunswick, 2·4; Yukon, 1·5.

#### *Numbers and Values of Pelts Taken, by Provinces, Years Ended June 30, 1944-46*

Province or Territory	Pelts			Values		
	1944	1945	1946	1944	1945	1946
	No.	No.	No.	\$	\$	\$
Prince Edward Island	24,706	26,945	34,201	890,362	875,785	1,195,930
Nova Scotia.....	101,913	100,353	184,119	764,863	593,551	1,123,390
New Brunswick.....	70,159	88,078	95,976	834,741	927,158	1,053,699
Quebec.....	519,155	534,783	645,123	6,167,605	5,059,995	7,444,582
Ontario.....	1,049,371	992,802	1,240,661	7,129,781	7,003,877	10,822,246
Manitoba.....	880,622	1,511,130	1,489,079	3,832,641	4,818,625	6,507,406
Saskatchewan.....	1,106,354	925,240	1,131,845	3,437,777	2,310,760	3,671,751
Alberta.....	1,513,951	1,772,381	1,501,722	4,686,311	3,884,998	5,209,064
British Columbia.....	682,371	696,751	598,373	2,736,991	3,113,780	3,414,795
Yukon.....	78,005	87,292	107,252	467,188	669,217	677,495
Northwest Territories	297,633	258,931	565,065	2,199,132	1,743,710	2,750,183
Canada.....	<b>6,324,240</b>	<b>6,994,686</b>	<b>7,593,416</b>	<b>33,147,392</b>	<b>31,001,456</b>	<b>43,870,541</b>

Muskrat skins contributed the largest amount to the total value in 1946 with a production valued at \$11,159,502. The value of mink pelts was almost as high at \$11,127,442. Beaver skins were third at \$7,817,490, while the

pelts of all types of fox totalled \$7,121,698. These figures represent increases over the previous season of 77.2 p.c. for muskrat, 39.4 p.c. for mink, 66.8 p.c. for beaver and 7.5 p.c. for fox.

The average values per pelt of the more important types of fur increased from 1945 to 1946. Muskrat pelts at \$3.26 advanced 23 p.c., standard mink fur averaged \$29.03, an increase of 29.7 p.c., and beaver at \$50.80 went up 39.8 p.c. Silver-fox pelts were up 2.8 p.c. to \$27.93, but platinum fox went down to \$62.39, or 10.3 p.c. from the previous season. The lowly rabbit skin advanced 35.6 p.c. to 80 cents and squirrel rose 83.7 p.c. to 79 cents.

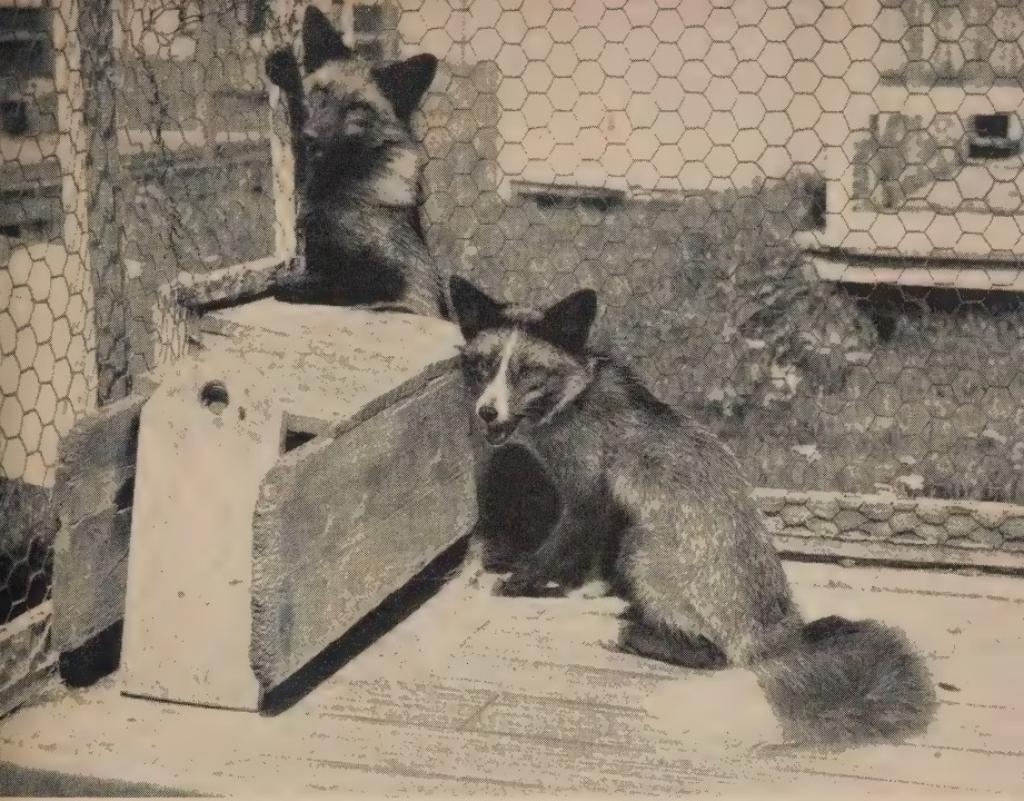
### **Fur Farming**

The potentialities of fur farming are such as to offer ample reward to those who are prepared to work steadily and intelligently towards the goal of raising animals with pelts at least equal in every respect to the best caught in their natural habitat. Fur farming is carried on in all provinces of the Dominion. An Experimental Fox Ranch operated by the Dominion Department of Agriculture at Summerside, Prince Edward Island, specializes in the breeding, feeding, housing and general care of foxes. Although the fox was the first to be raised in captivity, many other kinds of fur-bearing animals are now being raised including mink, raccoon, skunk, marten, fisher, rabbit and chinchilla. Mink farms are the most numerous of the miscellaneous class. There was a considerable expansion of fur farming in Canada during the twenty years prior to the outbreak of war in 1939, and in that period there was a marked change in type of furs that were most acceptable to the market. Black fox was popular twenty-five years ago. A few years later the full silver and new types sold in the upper price limits. The development of new colour phases of fox and mink has proved to be an incentive to the fur-farming industry. New-type fox such as platinum, glacier blue, pearl platinum, and white-marked and new-type mink including 'silverblu', pastel, silver-sable, black-cross, snow-white and several others are finding a ready market.

In 1945 there were 6,590 fur farms in Canada, 194 more than in 1944. Increases were recorded by each of the provinces with the exception of the three Maritimes. Fox farms, which numbered 4,245 in 1945, declined in all provinces, while mink farms, at 2,720, increased in all but two. The capital invested in fur animals and in buildings and equipment used in fur farming rose from \$19,389,783 in 1944 to \$24,554,030 in 1945. Of the 1945 total, Ontario's share was \$5,400,000, Quebec's \$4,600,000, Alberta's \$4,300,000 and Manitoba's \$3,600,000.

There were in all, 310,220 fur-bearing animals on farms in 1945, valued at \$15,412,758. During the year, births numbered 529,813 and deaths 50,784, leaving a net increase of 479,029. There were 411,156 animals pelted and 404,603 pelts were sold for \$10,276,474. In addition, 30,187 live animals were sold for \$1,753,500.

Each year an estimate is made of the anticipated pelt production. The figures forecast for the 1946-47 season were: standard silver fox to be pelleted, 96,300; new-type fox, 54,200; standard mink, 303,700; mutation mink, 15,300. It is estimated that 105,000 standard silver foxes and 76,900 new-type foxes



*Silver foxes in unprotected outdoor pens.*

will be pelleted in the 1947-48 season, while the estimate for mink is 430,400 standard and 60,000 mutation. These figures are computed from information received directly from fur farmers.

### *Grading*

In 1939 the Dominion Department of Agriculture introduced the grading of furs. One of the Department's main objectives in grading is to secure uniformity so that furs may be purchased by grade without the necessity of buyers from other countries personally examining the pelts. Grading offers many advantages to the producer as well as to the trade in general. It educates the rancher as to the proper value of his pelts, and creates an incentive to improve the quality of the product; it furnishes guidance in the planning of future matings, aids in raising the standard of quality of the entire crop of pelts and helps in advancing the level of prices for the high-quality pelts.

### *Trade*

Prior to the War, Canada marketed her fur pelts mainly in the United Kingdom but, since that market was practically dormant during the war years, the fur trade was carried on for the most part with the United States. A definite revival of trade with the United Kingdom was shown in 1946 and 1947.



Dressed Persian lamb skins, purchased at auction, are matched for curl and sheen. These pelts, despite the name, come chiefly from the United States.



Blocking a flank muskrat coat. The leather back of the fur is wetted and the fur stretched and nailed into place.

The Canadian fur trade, both exports and imports, is chiefly in undressed furs, the value of dressed and manufactured furs going out of Canada or coming in making up a comparatively small proportion of the total. A good part of the exports consists, of course, of those furs which Canada produces in the greatest abundance, mink being the most valuable, followed by fox, beaver and muskrat. On the other hand, such furs as Persian lamb, certain types of muskrat, rabbit and squirrel, opossum and raccoon, which are not produced to any extent in Canada, make up the major portion of the imports.

The first Canadian fur auction sale was held at Montreal in 1920 and since then that city has been the leading Canadian fur mart. To-day auction sales are also held at Vancouver, Edmonton, Regina and Winnipeg and at Regina the Saskatchewan Government maintains a Fur Marketing Service to assist the producers in that Province.

## Exports and Imports of Raw and Dressed Furs, 1937-46

Year	Exports <sup>1</sup>			Imports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$	\$	\$	\$	\$	\$
1937.....	10,722,537	5,728,014	17,515,460	1,676,407	4,293,135	8,169,840
1938.....	8,794,834	4,478,818	14,096,503	1,135,686	3,148,940	5,650,624
1939.....	7,054,745	6,772,641	14,568,986	1,018,417	4,455,938	7,133,052
1940.....	3,306,271	12,187,096	16,176,075	920,528	6,813,080	8,885,540
1941.....	430,428	14,883,751	16,159,033	1,970,910	4,112,345	9,120,337
1942.....	156,586	16,869,153	17,976,615	945,360	3,306,214	6,448,861
1943.....	66,844	25,086,912	26,448,522	496,578	4,923,632	8,613,879
1944.....	28,321	25,748,651	27,029,329	250,280	6,832,775	11,434,257
1945.....	1,363,727	26,755,604	29,572,474	262,775	9,078,294	21,205,173
1946.....	10,842,086	19,679,471	32,291,425	765,577	14,764,115	27,291,573

<sup>1</sup> Canadian produce only.

There were 20 fur-dressing plants in operation in Canada in 1945. The industry is established on a custom basis, that is, the customer sends the furs to be dressed or dyed and is charged an amount per skin treated. The number of skins treated in 1945 totalled 11,079,292 compared with 8,606,642 in 1944, and the amount received by the industry for such treatment was \$3,740,854, an increase of 22 p.c. over the previous year.

The value of production of the 571 establishments engaged in the manufacture of fur goods in 1945 amounted to \$51,032,829. This was a record figure, exceeding the 1944 total by 24 p.c. Women's fur coats comprised the bulk of the product, having a value of \$36,171,780, or 71 p.c. of the total.

A trapper removes a silver fox caught in his trap, sets it again and continues on his rounds.





## Mines and Minerals

**T**HE value of production of Canada's minerals during 1946 totalled \$502,959,963 which was \$4,204,782 more than in the preceding year. The demand by the building industry increased the production of structural materials, the sales value of brick, tile, cement, lime, stone and gravel amounting to \$66,120,221 or \$17,700,548 more than in 1945. Among the non-metallics the principal gains were in asbestos and gypsum, but the value of mineral fuels crossed the \$100,000,000 mark. However, the splendid gains in these items were almost offset by the drop of \$26,669,030 in the value of metallics. Copper, magnesium, nickel and platinum metals were much lower than in 1945, gold was up slightly and the values of lead and zinc showed substantial increases mainly because of higher world prices.

**Metallics.**—After the War the restrictions on development work in gold mines were lifted. This provided an impetus for the expansion of activities which were limited by the amount of skilled labour and supplies available. Much of the enthusiasm about gold mining ebbed subsequent to the return to parity in July, 1946, of Canadian funds in terms of United States dollars. This meant that the price of gold declined from \$38.50 per ounce to \$35.00.

The sources of early Canadian gold production are varied, the metal being recovered from stream channels, auriferous quartz ores, copper-gold-silver ores, and nickel-copper and silver-lead-zinc ores. Approximately 80 p.c. of the Canadian gold output represents gold bullion produced at auriferous quartz-lode mines in northwestern Quebec; in the Kirkland Lake, Larder Lake, Porcupine, Little Long Lac and Patricia areas of Ontario; and in British Columbia, from the Bridge River and Portland Canal Districts. Several gold-bearing deposits are under examination or development in Canada's new gold-mining field in the Yellowknife area of the Northwest Territories and the outlook for production in this camp is good. Gold production from all sources totalled 2,832,554 fine oz. valued at \$104,096,359 in 1946 compared with 2,696,727 fine oz. worth \$103,823,990 in 1945. Of the 1946 output, 1,813,333 fine oz. came from Ontario mines; 618,339 fine oz. from Quebec; 191,503 fine oz. from Manitoba and Saskatchewan; 136,242 fine oz. from British Columbia; 68,706 fine oz. from Yukon and the Northwest Territories; 4,321 fine oz. from Nova Scotia; and 110 fine oz. from Alberta.

Encouragement was given to Canadian silver production when, in September, 1945, the United States ceiling price for foreign silver was raised from 45 cents to 71·11 cents per fine oz., and further stimulus was provided by the advance to 90 cents in 1946. Since then the New York price has fallen to a little more than 71 cents and this is the price currently obtained by Canadian mines for silver exported after Dominion requirements have been satisfied.

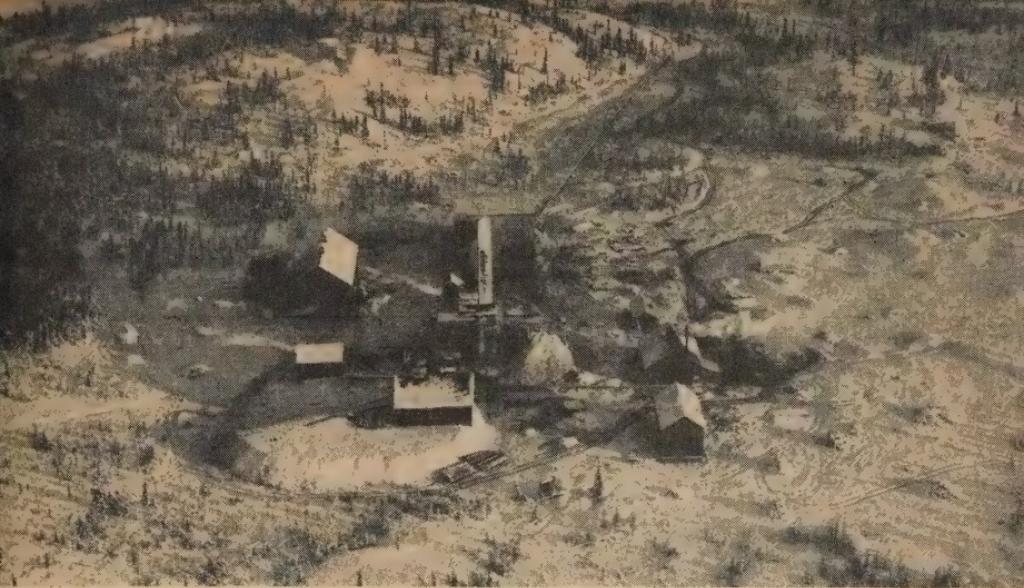
Production of non-ferrous metals was considerably less than in the preceding year. Copper and nickel production was affected by labour and market conditions. The principal copper producers, as in the immediately preceding years, were the Noranda, Waite-Amulet-Dufault and Normetal mines in Quebec; the International Nickel and Falconbridge Nickel mines in Ontario; the Hudson Bay and Sherritt-Gordon mines in Manitoba and Saskatchewan; and the Britannia and Granby deposits in British Columbia. Nickel production, as usual, came from the large nickel-copper deposits of the Sudbury District of Ontario. The famous Sullivan Mine of the Consolidated Mining and Smelting Company of Canada, located at Kimberley, British Columbia, continued to be the largest lead-producing property. The production of zinc in 1946 comprised the refined zinc produced at Trail, British Columbia, and Flin Flon, Manitoba, together with the zinc in concentrates exported from mines in Quebec, Manitoba and British Columbia. The Cobalt District showed renewed interest in the mining industry, but the fluctuations of market conditions for silver and cobalt caused hesitation in completing planned developments.

The magnesium plant at Haley, Ontario, was still idle as there was a sufficient stock of metal on hand to meet immediate peacetime needs. The lower price of mercury did not permit production from Canadian mines. Toward the end of the year the ceiling on copper, lead and zinc was raised to allow a higher domestic price for these metals.

The development of the large nickel-copper deposit in the Lynn Lake area, Manitoba, holds interest for the mining world, and also the exploration of large high-grade iron ore deposits in Labrador and Ungava, which continued during the summer season.

**Fuels.**—The fuel situation in Canada has always demanded the serious consideration of the authorities. The country is in a somewhat anomalous position in that large deposits of coal are located in the eastern and western provinces, but no coal is mined in Ontario and Quebec, where the greatest number of Canadian manufacturing industries are located and denser populations exist. For that reason, coal must be brought into these central provinces, chiefly from the United States. Supplies of anthracite coal, formerly brought in from Great Britain in substantial amounts, have been practically cut off in recent years because of the difficulties in ocean shipping. Production of coal in Canada totalled 17,806,450 tons in 1946 and 16,506,713 tons in 1945. Of the 1946 output, 8,826,239 tons came from mines in Alberta; 5,452,898 tons from Nova Scotia; 1,636,792 tons from British Columbia; 1,523,786 tons from Saskatchewan; and 366,735 tons from New Brunswick.

Natural gas has been found in most of the provinces of Canada. It is produced commercially in abundance in Alberta, to a lesser extent in Ontario, and in smaller quantities in New Brunswick, Saskatchewan and the Northwest Territories. In Alberta, most of the production comes from the Turner Valley Field, which supplies fuel for the field itself and is then piped to the cities and districts of Calgary and Lethbridge. In Saskatchewan, the eastern part of the Lloydminster field supplies the town of Lloydminster, and it is also produced in the Kamsack area. In Ontario, natural gas is produced only in the southwestern part of the Province and is piped to several cities



Negus Gold Mine, near Yellowknife, N.W.T.

and towns for industrial and domestic consumption. In New Brunswick, the Stoney Creek Field supplies the urban centres of Moncton and Hillsborough with natural gas. Output totalled 47,900,484,000 cu. ft. in 1946.

Crude petroleum is produced in Canada from wells in Alberta, the Northwest Territories, Ontario, New Brunswick and Saskatchewan. The Turner Valley in Alberta is the largest single oil-producing field in the Dominion with a normal output of over 90 p.c. of Canada's entire petroleum production. But Turner Valley, which has been the mainstay of Canadian output for more than 30 years, has been less productive since 1942. It is fortunate, therefore, that at the opportune time a new and very promising field should have been discovered in the area of Leduc, 18 miles from Edmonton. The discovery was made by Imperial Oil Limited in February, 1947. The defining of the field by exploratory drilling has been carried on intensively since that time and the results to date are extremely favourable. At the time of writing (October, 1947), it appears that Canada has under development a valuable new source of crude oil: during that month a new well, Globe-Leduc West No. 1, 2½ miles west of the former western production area, came into major production. This operation practically doubled the size of the field, which had at that date 15 producing wells.

In Ontario, crude oil continues to be produced at Petrolia, Oil Springs, and other places in the southwestern part of the Province. The Stoney Creek field supplies the output from New Brunswick. Production of crude petroleum in the Northwest Territories showed a sharp decline following suspension of activities associated with the Canol project in March and April of 1945. The production of crude petroleum commenced in the spring of 1945 in the Lloydminster Field of Saskatchewan. Output for Canada totalled 7,585,555 bbl. in 1946.

**Non-Metallics.**—Asbestos production reached an all-time high of \$25,240,562 in value. Output of gypsum exceeded 1,810,000 tons. The value of the mica produced was considerably below that sold during the war years. Clay



*Imperial's No. 2 well, ten miles northwest of Leduc, Alta., roars into production.*

products, including brick, tile, sewer pipe, etc., exceeded \$12,207,000; this was the highest value since 1929. For the first time in Canada's mineral history, the shipments of cement exceeded \$20,122,000 in value. A new high was recorded also in tonnage and value of sand and gravel produced.

Canada is endowed with widespread and diversified mineral wealth and the great unexplored areas of her northland afford promising fields for the prospector and explorer.

#### *Mineral Production, by Products, 1945 and 1946*

Item	1945		1946	
	Quantity	Value	Quantity	Value
METALLICS		\$		\$
Copper..... lb.	474,914,052	59,322,261	367,936,875	46,632,093
Gold..... fine oz.	2,696,727	103,823,990	2,832,554	104,096,359
Iron ore..... ton	1,135,444	3,635,095	1,549,523	6,822,947
Lead..... lb.	346,994,472	17,349,723	353,973,776	23,893,230
Magnesium..... "	7,358,545	1,607,264	320,677	75,538
Molybdenite concentrates "	978,114	411,663	736,400	295,640
Nickel..... "	245,130,983	61,982,133	192,124,537	45,385,155
Palladium, rhodium, iridium, etc..... fine oz.	458,674	18,671,074	117,566	5,162,801
Platinum..... "	208,234	8,017,010	121,771	7,672,791
Silver..... "	12,942,906	6,083,166	12,544,100	10,493,139
Zinc..... lb.	517,213,604	33,308,556	470,620,360	36,755,450
Others..... ton	22,858	2,881,784	—	3,139,546
TOTALS, METALLICS.....	—	317,093,719	—	290,424,689
FUELS		\$		\$
Coal..... ton	16,506,713	67,588,402	17,806,450	75,361,481
Natural gas..... M. cu. ft.	48,411,585	12,309,564	47,900,484	12,165,050
Peat..... ton	118	1,062	145	1,305
Petroleum..... bbl.	8,482,796	13,632,248	7,585,555	14,989,052
TOTALS, FUELS.....	—	93,531,276	—	102,516,888

## Mineral Production, by Products, 1945 and 1946—concluded

Item	1945		1946	
	Quantity	Value	Quantity	Value
	\$	\$		\$
<b>OTHER NON-METALLICS</b>				
Asbestos..... ton	466,897	22,805,157	558,181	25,240,562
Barite..... "	139,589	1,211,403	120,419	1,006,473
Gypsum..... "	839,781	1,783,290	1,810,937	3,671,503
Magnesitic dolomite and brucite.....	1	1,278,596	1	1,225,593
Mica..... lb.	7,044,221	233,270	8,720,669	199,039
Peat moss..... ton	83,963	2,011,139	96,839	2,395,649
Quartz..... "	1,513,828	1,535,458	1,413,378	1,554,798
Salt..... "	673,076	4,054,720	484,420	3,626,165
Sodium sulphate..... "	93,068	884,322	105,919	1,117,683
Sulphur..... "	250,114	1,881,321	234,771	1,784,666
Others.....	—	2,031,837	—	1,932,322
<b>TOTALS, OTHER NON-METALLICS.....</b>	—	<b>39,710,513</b>	—	<b>43,754,453</b>
<b>CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS</b>				
Clay products, brick, tile, sewer pipe, etc.....	1	8,913,092	1	12,207,367
Cement..... bbl.	8,471,679	14,246,480	11,560,483	20,122,503
Lime..... ton	832,253	6,525,038	840,799	7,074,940
Sand and gravel..... "	29,750,703	10,568,363	39,949,994	15,529,700
Stone..... "	6,205,555	8,166,700	8,056,260	11,185,711
<b>TOTALS, CLAY PRODUCTS, ETC.....</b>	—	<b>48,419,673</b>	—	<b>66,120,221</b>
<b>Grand Totals.....</b>	—	<b>498,755,181</b>	—	<b>502,816,251</b>

<sup>1</sup> Not available.

Ontario is the principal mineral-producing province of Canada, the gold and nickel-copper deposits of the northern districts being the outstanding features of the mineral resources of that Province. A great part of Quebec's mineral output is made up of gold, copper and asbestos, while lead and zinc are of chief importance in British Columbia. Nova Scotia and Alberta are the most important coal-producing provinces, Alberta producing also the bulk of the petroleum and natural gas output.

## Mineral Production, by Provinces, 1944-46

Province or Territory	1944		1945		1946	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
Nova Scotia.....	33,981,977	7.0	32,220,659	6.5	35,350,271	7.0
New Brunswick.....	4,133,902	0.9	4,182,100	0.8	4,813,166	1.0
Quebec.....	90,182,553	18.5	91,518,120	18.3	92,785,148	18.4
Ontario.....	210,706,307	43.4	216,541,856	43.4	191,544,429	38.1
Manitoba.....	13,830,406	2.8	14,429,423	2.9	16,403,549	3.3
Saskatchewan.....	22,291,848	4.6	22,336,074	4.5	24,480,900	4.9
Alberta.....	51,066,662	10.5	51,753,237	10.5	60,082,513	12.0
British Columbia.....	57,246,071	11.8	64,063,842	12.8	74,622,846	14.8
Yukon.....	939,319	0.2	1,239,058	0.2	1,693,904	0.3
Northwest Territories	1,440,069	0.3	470,812	0.1	1,039,525	0.2
<b>Canada.....</b>	<b>485,819,114</b>	<b>100.0</b>	<b>498,755,181</b>	<b>100.0</b>	<b>502,816,251</b>	<b>100.0</b>



# Water Powers

THE potential power available from the falls and rapids on the numerous rivers, large and small, which are distributed across the Dominion, constitutes one of Canada's great natural resources. In most sections of the country precipitation and topography are favourable to power development: in the Maritimes, while there are no large rivers, the precipitation is moderately heavy and the streams have steep gradients; the great St. Lawrence River system, which covers a large portion of Quebec and Ontario, offers tremendous power possibilities, a considerable part of which has been developed; the rivers flowing into Hudson Bay have large reserves of potential power of which only a small proportion is used; the tributaries of the Mackenzie River present numerous opportunities for power development; and the mountainous rivers in British Columbia, where the precipitation is very high, have abundant resources of water power.

Low-cost hydro-electric energy is fundamental to the industrial activities of Canada, and is the basis upon which several essential industries have been built. These include mining, milling and refining of base and precious metals; the fabrication of metallic products; the enormous power needs of the pulp, paper and wood-products industries; also the lesser but important requirements of food processing, textile and other light manufacturing. It has contributed largely to the high standard of living in Canada by providing economical domestic service to homes and farms, a service which is being rapidly extended.

From hydro-electric developments ranging in size from a few hundred to more than one million horse-power, networks of transmission lines carry power to most urban centres of Canada, to rural areas in many parts of the country, and to industries in isolated locations.

As an installation of hydraulic capacity averaging 30 p.c. in excess of available power, indicated by the ordinary six-month flow, has been found to be sound commercial practice, it is estimated that Canada's presently recorded water-power resources represent an installation of more than 52,000,000 h.p. Thus, the total of installed capacity is only 20 p.c. of the possible turbine installation.

During 1947 the demand for hydro-electric energy expanded in most parts of the country, owing to the high level of industrial activity and increased commercial and domestic consumption. This was due in part to the removal of wartime restrictions on the use of power and in part to the increased use of electrical appliances which again became available for purchase. The consumption of primary power distributed by central stations for the first 11 months of the year exceeded the same months of the previous high year of 1944 by 4·8 p.c. and was more than double that used during

the average of the pre-war years 1935-39. This high demand for primary power has resulted in a shortage of power in some areas, pending the completion of plants now under construction or planned.

**Available and Developed Water Power, by Provinces, Jan. 1, 1948**

Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency		Turbine Installation
	At Ordinary Minimum Flow	At Ordinary Six-Month Flow	
Prince Edward Island.....	3,000	5,300	2,617
Nova Scotia.....	20,800	128,300	133,384
New Brunswick.....	68,600	169,100	133,347
Quebec.....	8,459,000	13,064,000	5,878,872
Ontario.....	5,407,200	7,261,400	2,749,740
Manitoba.....	3,309,000	5,344,500	458,825
Saskatchewan.....	542,000	1,082,000	90,835
Alberta.....	507,800	1,258,000	106,560
British Columbia.....	7,023,000	10,998,000	917,024
Yukon and Northwest Territories.....	382,500	813,500	19,719
<b>Canada.....</b>	<b>25,722,900</b>	<b>40,124,100</b>	<b>10,490,923</b>

**Provincial Distribution of Water Power.**—The water powers of the *Maritime Provinces*, despite the lack of large rivers, constitute a valuable source of electric power, a considerable proportion of which has been developed. *Quebec* ranks highest in available water-power resources, having over 32 p.c. of the total recorded for the Dominion; it has made remarkable progress as its present installation of 5,848,572 h.p. represents almost 57 p.c. of the total for Canada. The Saguenay River Shipshaw development of 1,200,000 h.p. and the St. Lawrence River Beauharnois Plant of 689,000 h.p. are the two largest in Canada. The Province of *Ontario* has extensive water-power resources and in total hydro-power developed is exceeded only by *Quebec*. The Hydro-Electric Power Commission of Ontario operates 55 generating stations with installations totalling 1,800,000 h.p., the largest being the Niagara River Queenston Plant of 560,000 h.p.; a large amount of power is also purchased.

*Manitoba* has more water-power resources and has developed them to a greater extent than either of the other Prairie Provinces. Practically all of the developed sites centre on the Winnipeg River. These supply not only Winnipeg and its suburban areas but, through the transmission network of the Manitoba Power Commission, power is distributed to more than 200 municipalities and a large part of the rural areas of southern Manitoba where farm electrification is a primary objective. In *Saskatchewan* water-power development is confined to the northern mining districts. The southern portions of *Saskatchewan* and *Alberta*, which are lacking in water-power resources, have large fuel reserves. In *Alberta*, present developments are located in the Bow River Basin from which power is delivered to the transmission system serving Calgary and numerous other municipalities between the International Boundary and the area north of Edmonton. However, the larger part of power resources are located north of, and remote from, the centres of population.

*British Columbia*, traversed by three distinct mountain ranges and with favourable climate and rainfall, ranks second among the provinces in available power resources and its hydraulic development is exceeded only by Quebec and Ontario. Present developments are practically all located in the southern part of the Province in the Fraser and Columbia River Basins, although resources are well distributed. In *Yukon* and the *Northwest Territories*, there are numerous rivers offering opportunities for power development, although relatively light precipitation and a prolonged winter season limit favourable sites to locations where adequate storage is available. Successful developments have been made for local mining purposes.

**Hydro-Electric Construction during 1947.**—Although the total of installed hydraulic capacity in Canada was increased during 1947 by 168,000 h.p., the growing demand for power, not only readily absorbs the additional power produced, but creates a shortage of primary power during the peak-load winter periods, particularly throughout southern Ontario. To offset this shortage, occasioned by great industrial activity and by increased commercial, domestic and farm consumption, a huge program of hydro-electric expansion is now under way.

*Ontario*.—During 1947, the Hydro-Electric Power Commission of Ontario brought into operation its new 70,000-h.p. unit in the DeCew Falls plant near St. Catharines. The Commission also had four major projects under construction: (1) On the Madawaska River at Stewartville, progress was made on a dam and powerhouse designed to produce 81,000 h.p. Originally scheduled for completion early in 1948, work has been somewhat delayed by construction difficulties. (2) Construction, including highway and railway

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**Power development at La Tuque, on the upper St. Maurice River, Que. This plant, operated by the Shawinigan Water and Power Company, has a capacity of 226,000 h.p. at maximum efficiency, and is an integral part of the St. Maurice Valley system.**



relocation, was commenced on the 360,000 h.p. development on the Ottawa River at Des Joachims above Pembroke. (3) In northern Ontario, construction was begun on the Aguasabon River project at Terrace Bay, capacity 53,000 h.p. (4) An additional unit of 7,500 h.p., being installed in the Ear Falls plant on the English River, is scheduled for early operation. The Commission has also been investigating the following sites: Chenaux Rapids on the Ottawa River above Renfrew, 160,000 h.p.; Tunnel Rapids on the Mississagi River near Thessalon, 58,000 h.p.; Pine Portage Falls on the Nipigon River, 40,000 h.p., ultimately 160,000 h.p.; and two additional sites on the Madawaska River.

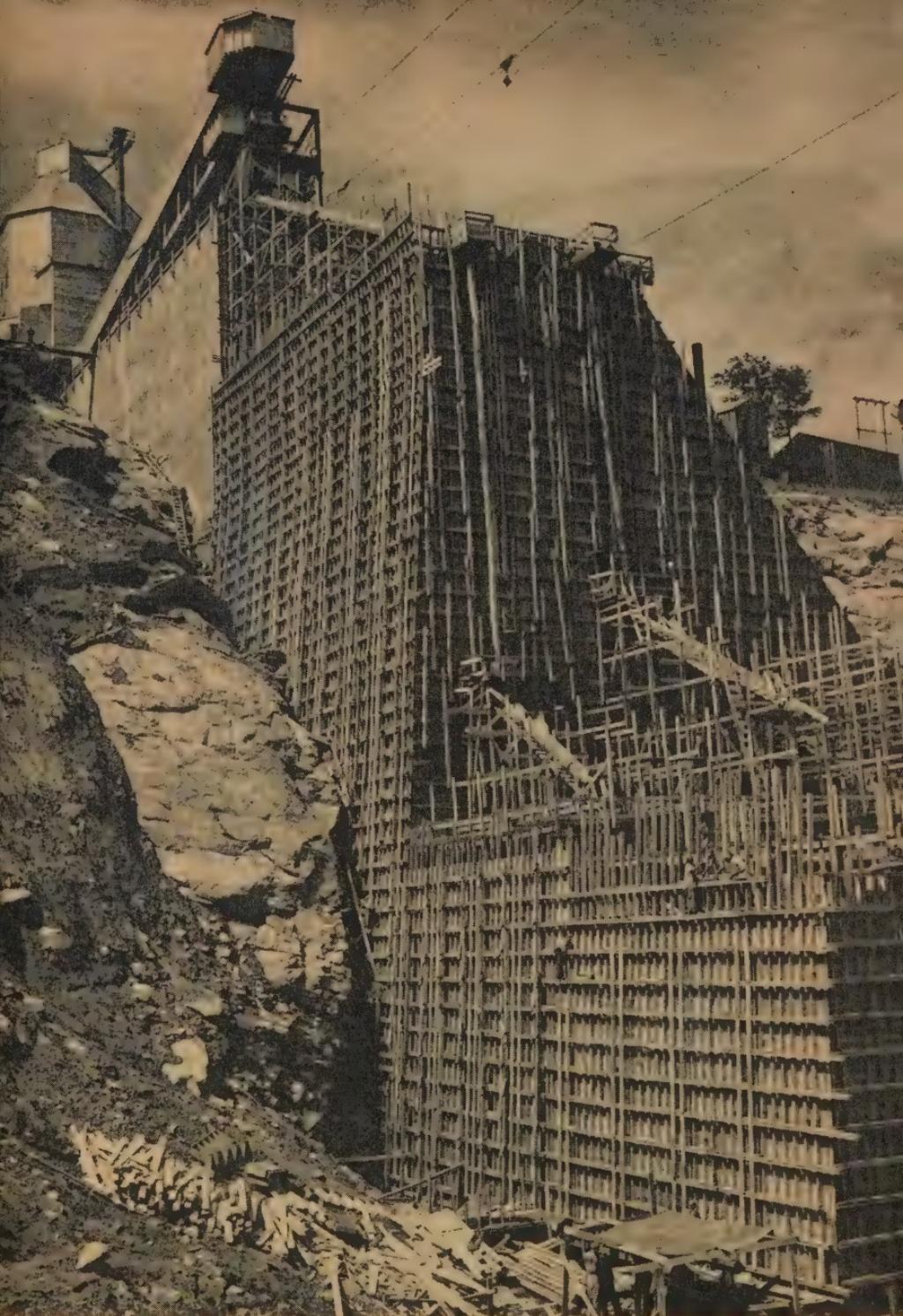
*Quebec*.—The Gatineau Power Company completed the installation of the fifth and final unit of 24,000 h.p. in its Farmers Rapids plant on the Gatineau River. The Lower St. Lawrence Power Company brought into operation its new plant of 6,000 h.p. on the Metis River and the International Paper Company completed a plant of 500 h.p. on the Riverin River. The Shawinigan Water and Power Company had under construction at Shawinigan Falls on the St. Maurice River, a new power house designed to develop 195,000 h.p. in three units. At the end of the year work was well advanced in connection with raising the head and increasing the storage area of the Rapid VII, Ottawa River plant of the Quebec Hydro-Electric Commission, and preparatory construction, covering proposed extension of capacity, was continued in the Commission's Beauharnois Plant, St. Lawrence River.

*British Columbia*.—While no capacity was added during 1947, construction was advanced on two major projects. The British Columbia Power Commission began the installation of two units of 25,000 h.p. each in the Campbell River plant, Vancouver Island, as part of a projected installation of 100,000 h.p. The British Columbia Electric Railway Company made good progress in its development on Bridge River, the initial capacity of which will be two units of 62,000 h.p. each. To alleviate a shortage of power in the Vancouver district, an inter-connection was completed with the Bonneville Power Administration, Washington State, United States.

*Alberta*.—The Calgary Power Company completed construction and brought into operation its new Barrier plant of 13,500 h.p. on the Kananaskis River near Seebe, Alta.; this plant is tied in to the power network served by the Company's other plants on the Bow and Cascade Rivers.

*Manitoba*.—The city of Winnipeg continued work on the extension of the Slave Falls plant on the Winnipeg River, covering the installation of units Nos. 7 and 8 of 12,000 h.p. each. At the Seven Sisters development of the Winnipeg Electric Company, favourable progress was being made with alterations to raise the head and provide for the installation of a fourth unit which will increase the plant capacity by 90,000 h.p. Preliminary investigations and power surveys were being made by the Manitoba Power Commission on the Dauphin River and, by northern mining interests, on the Churchill River at Granville Falls.

*Northwest Territories*.—Good progress was reported on the Snare River project, 92 miles northwest of Yellowknife, where the Federal Government, through the Surveys and Engineering Branch, Department of Mines



Construction work on the new dam at Stewartville on the Madawaska River, Ont. This hydraulic installation will have a capacity of 81,000 h.p. and is being built at an estimated cost of \$10,500,000.

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and Resources, is building a plant of 8,000 h.p. to serve mines in the Yellowknife area. This is the first stage of a projected 30,000 h.p. development.

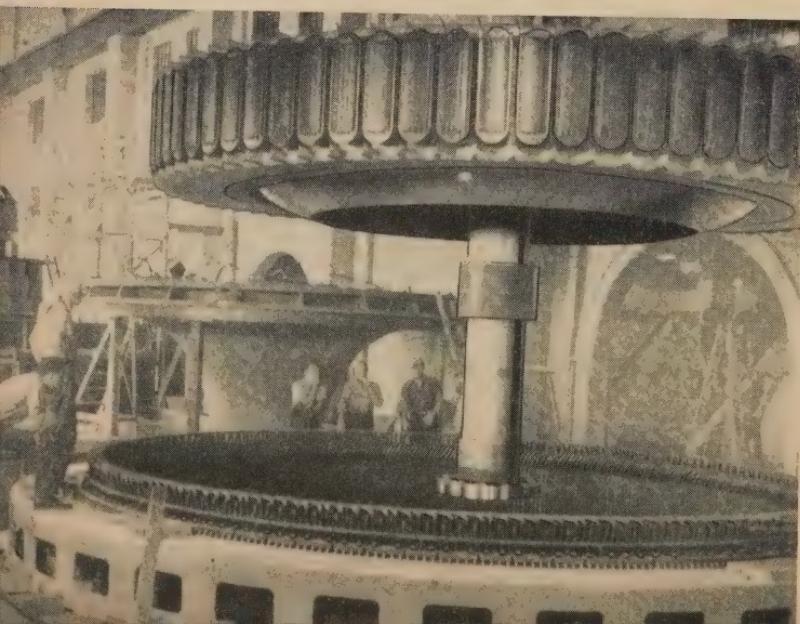
*Nova Scotia*.—The Nova Scotia Power Commission has under construction a plant of 3,200 h.p. on Dickie Brook, near Guysborough. Preliminary plans have been drawn by the Nova Scotia Light and Power Company for a further development of 4,000 h.p. on the Gaspereau River diversion.

### Central Electric Stations

Central electric stations are companies, municipalities or individuals selling or distributing electric energy generated by themselves or purchased for resale. They are divided into two classes according to ownership, viz., (1) commercial—those privately owned and operated by companies or individuals, and (2) municipal—those owned and operated by municipalities or Provincial Governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 88 p.c. of the total capacity of hydraulic installations in all industries in Canada and the generators driven by this hydraulic equipment generate 98 p.c. of the total output of all central electric stations. The fuel stations number 300 and 45 hydraulic stations have thermal auxiliary equipment.

The central electric stations industry is one particularly suited to large-scale operation because of the huge outlays of capital required. Capital invested and total horse-power installed increased almost continuously even during the depression years, mainly because large power projects, planned before the depression, were in process of construction.

Statistics for the production of electricity by central electric stations were first compiled in 1919. From the 5,500,000,000 kwh. produced in that year the output doubled by 1925, and reached 18,000,000,000 kwh. by 1930. After a period of decline in the early 1930's, there was an almost continuous



Generator wheel being placed in position over the turbine runner in a unit at Slave Falls development, Man.

**Electricity reaches out to the rural areas. The dream of supplying the Canadian farmer with power that will transform his whole way of living is moving steadily toward realization. Continued improvement in the supply of materials and an easing of the labour shortage should see a rapid extension of rural electrification schemes.**



succession of increases until in 1947 the average monthly output was more than eight times what it had been in 1919.

#### Average Monthly Output of Central Electric Stations, 1929-47

Year	From Water	From Fuel	Total	Year	From Water	From Fuel	Total
	'000 kwh.	'000 kwh.	'000 kwh.		'000 kwh.	'000 kwh.	'000 kwh.
1929.....	1,441,203	27,622	1,468,825	1942....	3,037,823	62,109	3,099,932
1932.....	1,296,360	25,845	1,322,205	1943....	3,299,998	64,807	3,364,805
1938.....	2,130,006	37,728	2,167,734	1944....	3,290,538	81,637	3,372,175
1939.....	2,321,815	40,811	2,362,626	1945....	3,262,771	78,946	3,341,717
1940.....	2,460,466	46,222	2,506,688	1946....	3,382,602	84,374	3,466,976
1941.....	2,731,880	55,233	2,787,113	1947 <sup>1</sup> ....	3,717,215	84,844	3,802,059

<sup>1</sup> Seven-month average.

Revenues of central stations in 1945 amounted to \$215,105,473 and 1,987,360 domestic customers were served, representing approximately two-thirds of all families in Canada, both urban and rural.

Electric energy is exported from Canada only under licence and an export tax of 0·03 cent per kwh. is levied. Exports have shown a steady increase over the past decade and amounted to 2,646,435,000 kwh. in 1945, but declined to 2,481,631,000 kwh. in 1946.

# Manufactures

## T

HE chief forward movement in the development of Canadian manufactures has been the result of three great influences: first, the opening of the west at the beginning of the present century, which greatly increased the demand for manufactured goods of all kinds, especially construction materials; secondly, the First World War which left a permanent imprint upon the variety and efficiency of Canadian plants; and thirdly, the Second World War with its insatiable demands for food and manufactured materials of all sorts.

The tremendous increase in production attained by the manufacturing industries of Canada during the war years is indicated by the increase in some of the main factors of production between 1939 and the highest point attained during the War. For manufacturing as a whole, there was an increase of 161 p.c. in the gross value of production, 162 p.c. in the value added by manufacture, 89 p.c. in the number of persons employed, and 175 p.c. in the salaries and wages paid.

The situation created as a result of Canada's strategic position as a source of food and armaments had far-reaching effects on the magnitude and diversification of Canadian manufacturing production, with the result that Canada has now entered a new era in manufacturing development.

### Statistics of Manufactures, 1870-1945

Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
							\$ '000
No.	\$ '000	No.	\$ '000	\$ '000	\$ '000	\$ '000	\$ '000
1870.....	41,259	77,964	187,942	40,851	124,908	96,710	221,618
1880.....	49,722	165,303	254,935	59,429	179,919	129,757	309,676
1890.....	75,964	353,213	369,595	100,415	250,759	219,089	469,848
1900 <sup>2</sup> .....	14,650	446,916	339,173	113,249	266,528	214,526	481,053
1910 <sup>2</sup> .....	19,218	1,247,584	515,203	241,008	601,509	564,467	1,165,976
1920 <sup>3</sup> .....	22,157	2,914,519	591,753	711,080	2,083,580	1,609,169	3,692,748
1929.....	22,216	4,004,892	666,531	777,291	2,029,671	1,755,387	3,883,446
1933.....	23,780	3,279,260	468,658	436,248	967,789	919,671	1,954,076
1937.....	24,834	3,465,228	660,451	721,727	2,006,927	1,508,925	3,625,460
1939.....	24,805	3,647,024	658,114	737,811	1,836,159	1,531,052	3,474,784
1940.....	25,513	4,095,717	762,244	920,873	2,449,722	1,942,471	4,529,173
1941.....	26,293	4,905,504	961,178	1,264,863	3,296,547	2,605,120	6,076,308
1942.....	27,862	5,488,786	1,152,091	1,682,805	4,037,103	3,309,974	7,553,795
1943.....	27,652	6,317,167	1,241,068	1,987,292	4,690,493	3,816,414	8,732,861
1944.....	28,483	4	1,222,882	2,029,621	4,832,333	4,015,776	9,073,693
1945.....	29,050	4	1,119,372	1,845,773	4,473,669	3,564,316	8,250,369

<sup>1</sup> For and since 1929 the figures for the net value of production represent the gross value less the cost of materials, fuel and electricity. Prior to this, only the cost of materials is deducted.

<sup>2</sup> Includes all establishments employing five hands or over.

<sup>3</sup> From 1920 to 1945 the figures include all establishments irrespective of the number of employees, but exclude construction and custom and repair work.

<sup>4</sup> Not collected.

Industrial production as a whole now exceeds that of any former peacetime period. An even greater supply of goods would have been available and many current shortages relieved if industrial operations had not been interrupted so seriously by labour disturbances during 1946 which have produced critical shortages in many basic commodities. Such disturbances have indeed been the main restrictive influence on output.

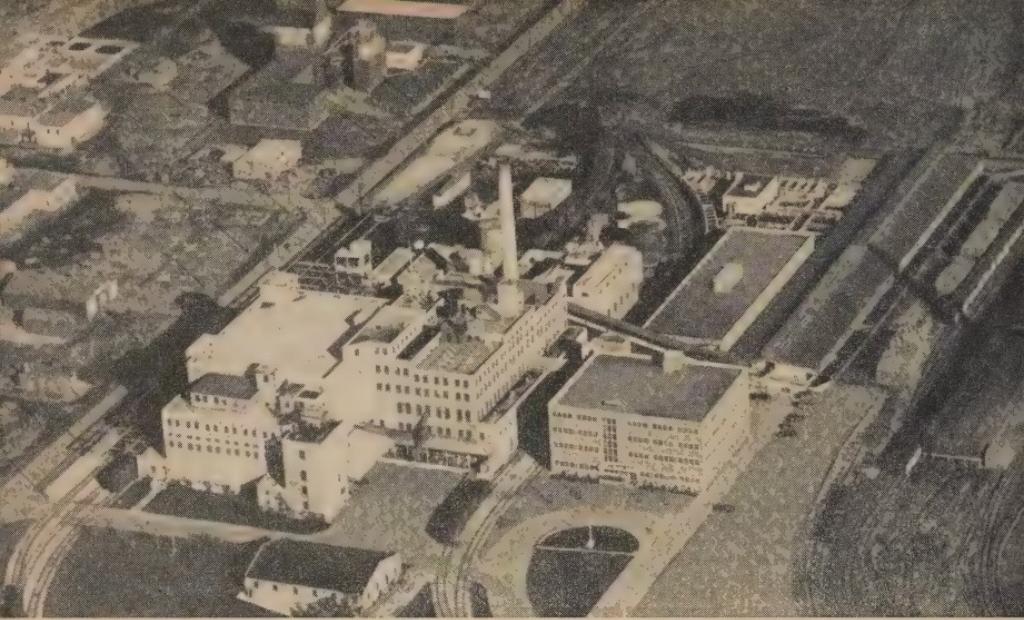
### *Statistics of Manufactures, by Provinces and Purpose Groups, 1945*

Province and Group	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	No.	\$ '000	\$ '000	\$ '000	\$ '000
Prince Edward Island.....	234	1,851	1,679	8,243	3,178	11,593
Nova Scotia.....	1,297	33,423	51,703	107,860	84,358	199,775
New Brunswick.....	889	22,503	32,408	87,235	63,380	156,623
Quebec.....	10,038	384,031	607,473	1,307,534	1,149,391	2,531,904
Ontario.....	10,869	518,056	882,483	2,148,291	1,720,938	3,965,069
Manitoba.....	1,302	38,367	59,814	216,115	117,775	339,821
Saskatchewan.....	926	11,617	16,906	126,279	38,275	167,688
Alberta.....	1,157	21,486	32,760	166,198	78,548	248,288
British Columbia.....	2,326	87,974	160,419	305,760	307,955	628,903
Yukon and N.W.T.....	12	64	127	153	518	705
<b>Totals.....</b>	<b>29,050</b>	<b>1,119,372</b>	<b>1,845,772</b>	<b>4,473,668</b>	<b>3,564,316</b>	<b>8,250,369</b>
Producers materials.....	8,941	320,974	529,821	1,258,478	1,046,626	2,428,837
Food.....	8,310	138,798	193,248	1,275,251	421,152	1,719,329
Industrial equipment.....	2,996	199,851	351,885	653,420	662,460	1,348,435
Vehicles and vessels.....	442	160,321	331,826	507,145	562,303	1,084,077
Clothing.....	3,046	123,681	159,792	303,595	266,681	573,291
Drink and tobacco.....	648	29,762	47,398	140,745	180,081	324,989
Books and stationery.....	2,502	51,276	85,429	84,950	156,992	244,398
House furnishings, etc.....	1,102	41,204	61,923	90,428	102,342	195,860
Personal utilities.....	780	20,998	29,266	61,740	66,176	129,130
Miscellaneous.....	283	32,507	55,184	97,916	99,503	202,023

<sup>1</sup> Net value of production represents the gross value less the cost of materials, fuel and electricity.

**Food Industries.**—Normally the food industries of Canada contribute about one-quarter of the total output of manufactured products. In 1945 the gross production of the food industries was valued at \$1,719,329,000. The leading industries, with the gross value of production in 1945, were as follows: slaughtering and meat packing, \$504,849,523; flour and feed mills, \$224,269,380; butter and cheese, \$224,174,572; bread and other bakery products, \$132,518,212; miscellaneous foods, \$109,931,480; fruit and vegetable preparations, \$99,371,391; fish curing and packing, \$93,567,274; biscuits, confectionery, cocoa, etc., \$84,627,083; prepared stock and poultry feeds, \$70,250,739; sugar refining, \$61,821,443; and condensed milk, \$34,809,972. Each of these industries reported a substantial increase; all told, there was an increase of 39 p.c. in the physical volume of production as compared with 1939.

**Slaughtering and Meat Packing.**—Slaughtering and meat packing is the leading industry of the food group. In 1945 it ranked first among all the manufacturing industries of Canada in gross value of production, having for the second time displaced the non-ferrous metal smelting and refining industry. In that year the physical volume of production in the industry was about 67 p.c. higher than in 1939; the industry furnished employment to 23,215 persons who were paid \$40,009,888 in salaries and wages, and paid out \$366,000,000



A large meat-packing plant at St. Boniface, Man.

for live stock. Of the 152 establishments in 1945, 28 contributed 80 p.c. of the total output with an average gross value of production per establishment of \$14,300,000.

*Dairy Products.*—The expansion in the dairying industry, with the consequent increases in output of butter, cheese and concentrated milk products, which commenced at the beginning of the War reached a peak in 1945. Statistics on this branch of manufacturing are given in the chapter on Agriculture, pp. 88-91.

*Flour Milling.*—The maximum daily capacity of Canada's flour mills is 94,730 bbl. per day of 24 hours, or an annual running capacity of about 29,000,000 bbl. The output of flour during the 1946-47 crop year amounted to 28,518,602 bbl., the highest on record, and an increase of about 44 p.c. over the previous ten-year average.

Exports of wheat flour to all countries increased to 14,984,287 bbl. in 1946 from an export of only 3,911,886 in 1938. The wartime demand for Canadian flour in foreign markets was a decided boon to Canadian agriculture, inasmuch as it enabled flour mills to make available large quantities of mill feeds that otherwise would not have been produced. Farmers were thus enabled to obtain sufficient feeds to permit them to fulfil the large commitments for the export of cheese and bacon.

*Canned Foods.*—Exports of canned goods from Canada have almost kept pace with increased production. Nearly 30 p.c. of such production finds its way abroad. There has, however, been a considerable change in the emphasis in export trade that certain canned products have assumed. Canned fruits exported in 1945, for instance, were 41 p.c. of their volume in 1939, although such exports were much greater in 1945 than in the two preceding years. Exports of canned vegetables and canned soups maintained their pre-war volume fairly well until 1945, when exports were less than 14 p.c. of those in 1939, but canned fish, canned meats and concentrated milk in cans all showed very substantial increases which were held throughout the period.

*Principal Foods Canned in Canada, 1939 and 1945*

Product	1939		1945	
	Quantity	Value	Quantity	Value
Fish.....	lb.	108,893,332	15,478,961	189,406,289
Fruits.....	"	116,500,115	7,769,005	56,649,898
Vegetables.....	"	251,432,000	14,526,671	320,363,766
Meats.....	"	7,887,228	1,743,227	145,857,917
Soups.....	"	96,660,000	9,259,222	131,907,508
Other foods.....	"	—	9,113,941	—
Concentrated milk.....	cwt.	1,660,425	11,575,971	2,952,698
<b>Totals.....</b>		<b>—</b>	<b>69,466,998</b>	<b>—</b>
				<b>159,114,971</b>

**Textile Industries.**—Individual industries in the textile group represent practically all stages of manufacturing and these industries are, to a high degree, centralized in Quebec and Ontario.

The peak of textile production was reached in 1942. For that year the index of the physical volume of production stood at 152·4, an increase of 45·3 p.c. as compared with 1939. Minor declines in volume were reported in 1943, 1944 and 1945, the indexes being 140·2, 136·2 and 134·7, respectively. In spite of the declining production during these three years, all the major industries of the group operated at substantially higher levels in 1945 than in 1939. For textiles as a whole there was an increase of 29 p.c. in volume. The woollen cloth industry reported an increase of 57 p.c., silk and artificial silk 56 p.c., women's factory clothing 39 p.c., men's factory clothing 36 p.c., cotton yarn and cloth 8 p.c., and hosiery and knitted goods 7 p.c.

During 1945 the textile industries employed 158,148 persons, 27,975 of whom were employed in the women's factory clothing group, 27,423 in men's factory clothing, 23,654 in hosiery and knitted goods, 21,646 in cotton yarn and cloth and 11,950 in silk. For the whole industry \$207,629,471 was paid out in salaries and wages. Before the War the textile industries employed almost half the women employed in all manufacturing industries, but during the war years so many avenues of employment were opened up to women that by 1944 the proportion in textiles had dropped to about 26 p.c. With the lay-off of large numbers of women in war industries during 1945 the proportion advanced to 30 p.c. for that year.

New developments in the industry include the use of silk (viscose) yarns in the production of tire cord and fabrics, the experimental production of acetate artificial silk from wood-pulp, and the production of the basic raw material for nylon yarn production.

**Iron and Steel Industries.**—The three major corporations that constitute the core of the industry in Canada are self-contained in that they process iron and steel from the ore through to the semi-finished and finished articles. The activities of the Steel Company of Canada, Limited, cover a wide range of products. The main plant at Hamilton, Ont., has 3 blast furnaces, 13 open-hearths, 1 electric furnace, and rolling mills for making billets, bars, wire rods, sheets, plates and light shapes. Its capacity is about 1,100,000 net tons of ingots annually. In addition, it operates several works in Ontario and

Quebec for the production of wire, fencing, nails, screws, bolts, nuts, forgings, pipe, horseshoes, etc. The Algoma Steel Corporation, Limited, has 5 blast furnaces, 12 open-hearts, and also rolling mills. Its capacity is about 760,000 tons of ingots yearly and its chief products are billets, rails and rail fastenings, carbon and alloy merchant bars, structural shapes and sheet piling. It is Canada's main producer of heavy structural shapes which are made in all standard sizes and forms. The Dominion Steel and Coal Corporation operates 4 blast furnaces and 16 steel furnaces with a yearly ingot capacity of 750,000 tons. Its rolling mill makes billets, rails, rail fastenings, merchant bars and wire rods and in other plants or plants of subsidiary companies it makes wire, fencing, nails and similar lines.

During the War the producers of pig iron built two of the largest blast furnaces in the British Empire, to bring the capacity of Canadian furnaces to a total of 2,744,000 net tons per annum. Actual output of pig iron in 1946 was 1,403,758 net tons compared with 1,777,949 tons in 1945 and 846,418 tons in 1939.

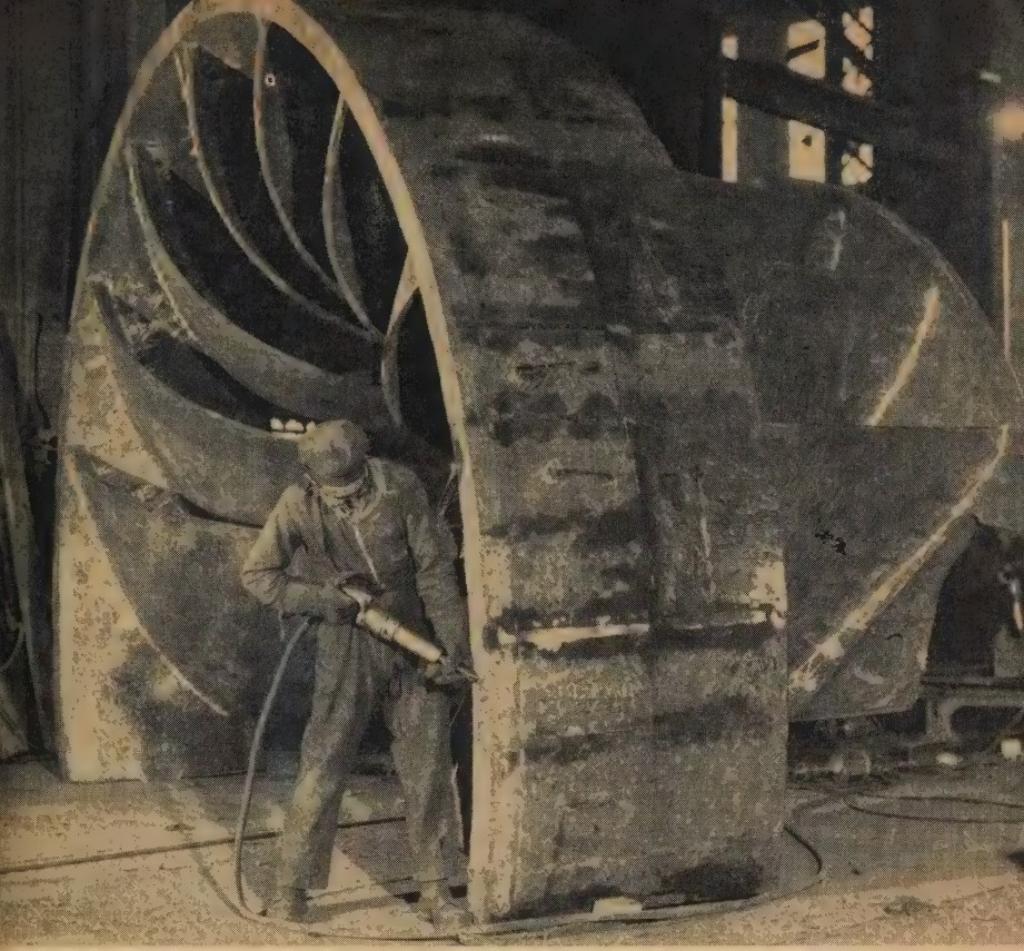
Notable expansion occurred during the war years in connection with alloy steels and steel plates. The production capacity and output of alloy steels was multiplied six times, making Canada practically independent in providing the types used in guns, armour plate and machine tools. In all, there are 133 steel furnaces in Canada, including 49 open-hearth units, 81 electric units and 3 converters.

Canada's steel production in 1946 amounted to 2,334,631 tons compared with the record of 3,109,851 tons in 1942 and with the best pre-war tonnage of 1,571,227 in 1937. At the beginning of 1940 the rated capacity of steel furnaces in the Dominion was 2,300,000 net tons, but new installations raised this potential to 3,547,000 tons at the end of 1946, including 3,245,000 tons ingot capacity and 302,000 tons for castings.

In the secondary or steel-fabricating industries, there was tremendous expansion in the war years, particularly in the shipbuilding, aircraft and motor-vehicle industries. The cessation of hostilities brought drastic declines in these groups. For a decade prior to 1940 the shipbuilding industry was practically inactive, but in 1944 there were over 67,000 workers in 22 major and 72 smaller yards with output valued at \$329,000,000; in 1946 the estimated value of output was \$109,000,000. The aircraft industry, which had fewer than 1,000 employees at the outbreak of war in 1939, had approximately 80,000 workers in main assembly and in sub-assembly plants in 1944 when output amounted to \$427,000,000, while in 1946 employees were 15,200 in number and output totalled \$72,755,000. The automobile industry, which early in the War was switched entirely to military vehicles, reached a peak in 1944 with 22,499 employees and production valued at \$324,000,000; in 1946 the output was valued at \$193,439,000.

For the entire group of iron and steel industries, the output in 1946 was valued at \$1,441,000,000 compared with \$2,541,000,000 in 1944 and \$553,000,000 in 1939.

**Chemicals and Allied Products.**—Output from the chemicals and allied industries in 1946 totalled \$356,000,000 compared with \$479,000,000 in 1945. While these figures indicate a decline of 26 p.c., it should be remembered that there was still a very large volume of war production in 1945, especially from the shell-filling and small-arms ammunition plants. Omitting the data

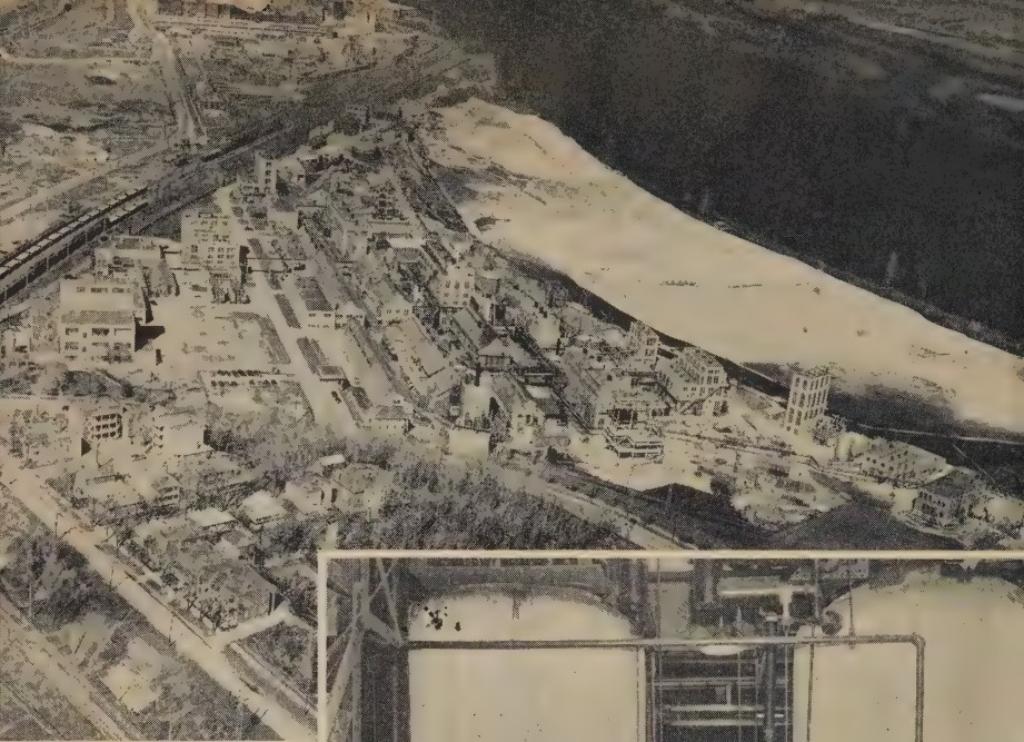


Trimming a section of a two-piece hydro-electric turbine runner being made for shipment to Brazil. This is the largest hydro casting ever made in Canada—each section weighs 73,350 lb. and the assembled runner is over 16½ ft. in diameter.

for these ammunition works, the total output value for chemicals and allied products was \$356,000,000 in 1946, \$362,000,000 in 1945 and \$159,000,000 in 1939.

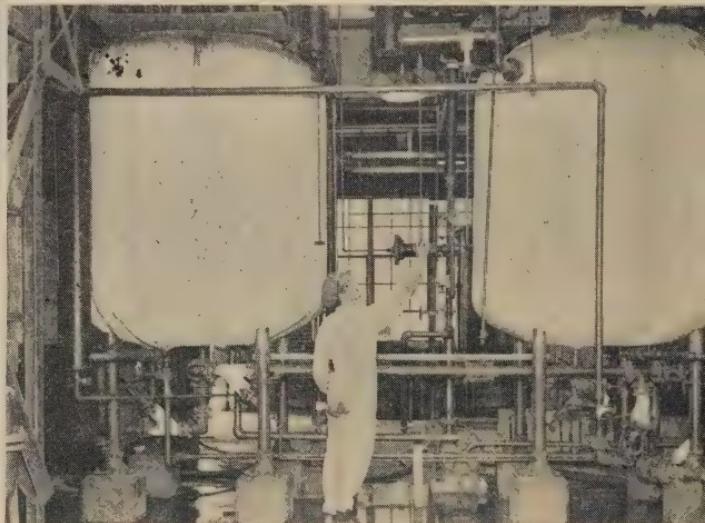
On this basis, the decline in 1946 was less than 2 p.c., but the outstanding fact revealed by the statistics for the current year is not that there was a slight drop from the 1945 level of production, but that in its first full post-war year the industry operated at more than double the rate attained in 1939, the best pre-war year. Higher prices for the products of these industries probably accounted for about 12 p.c. of this rise in production but, after allowing for such increases, it appears that the advance in physical volume of output was close to 100 p.c. The output of paints was up 106 p.c. in value; medicinals increased 136 p.c.; and fertilizers advanced 283 p.c.

It appears that the chemical industries have emerged from the War in a slightly better position than industry as a whole. The index of the physical volume of business for all manufactures in Canada averaged 188·4 in 1946 (1935-39=100), a gain of 88 p.c. for industry in general compared with about 100 p.c. for the chemical group. Quite a number of the Government wartime chemical projects have now been taken over by private companies and have



↑ A chemical plant at Shawinigan Falls, Que. This plant is the largest producer of calcium carbide in the British Empire and is also one of the world's leading manufacturers of synthetic acetic acid and other acetylene derivatives.

Interior of the chloro plant. →



become part of the permanent industry. For example, the North American Cyanamid Company Limited has purchased the huge plant of the Welland Chemicals Limited, and the Consolidated Mining and Smelting Company of Canada Limited has taken over the ammonia plant at Trail, British Columbia, and also the works at East Calgary which was formerly operated by Alberta Nitrogen Limited. These works, which were begun when the bombing of Britain was at its height, were intended to insure an adequate supply of ammonia and ammonium nitrate for military purposes. At present they are operating near to capacity on 'Nitraprills' for fertilizer use.

In 1946, there were about 968 establishments making chemicals and allied products, and a monthly average of 36,000 workers were employed. About \$148,000,000 were expended by the industry during the year for materials for manufacturing, \$13,000,000 for fuel and power, and \$72,000,000 for labour. The 509 works in Ontario accounted for 53 p.c. of the production, and the 318 establishments in Quebec accounted for 33 p.c.

## Leading Individual Industries

The extraordinary demand for war equipment and food resulted in a rearrangement in the ranking of many industries during the war years. Such industries as miscellaneous chemicals, shipbuilding, iron and steel and aircraft moved up near the top of the list during 1942-44, while pulp and paper, in second place after non-ferrous metal smelting and refining up to 1941, stood in third place in 1942, seventh place in 1943 and fifth place in 1944. Slaughtering and meat packing displaced non-ferrous metal smelting in first place in 1944. In 1945, however, while slaughtering and meat packing remained in first place, pulp and paper moved up again to second place and sawmills from eleventh to fifth place. Miscellaneous chemicals, which stood in third place in 1944, dropped to fifteenth place in 1945.

### Principal Statistics of Fifteen Leading Industries, 1945

Industry	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$ '000	\$ '000	\$ '000	\$ '000
Slaughtering and meat packing.....	152	23,215	40,010	427,168	74,765	504,849
Pulp and paper.....	109	39,996	80,463	179,369	180,402	398,804
Non-ferrous smelting and refining.....	17	16,771	33,853	238,940	89,899	355,676
Aircraft.....	38	37,812	84,230	115,093	161,747	278,653
Sawmills.....	5,295	44,040	54,017	126,007	103,154	231,108
Electrical apparatus and supplies.....	247	44,129	76,469	92,041	135,920	230,532
Automobiles.....	6	17,915	43,623	164,964	61,987	228,695
Flour and feed mills.....	1,023	7,511	11,323	192,271	30,014	224,269
Butter and cheese.....	2,241	19,435	26,864	171,011	49,110	224,174
Shipbuilding.....	89	48,118	99,470	60,294	141,646	204,594
Petroleum products.....	46	6,775	13,891	151,153	41,424	201,684
Primary iron and steel	63	29,378	57,862	86,417	89,859	192,279
Rubber goods (including footwear).....	55	23,490	39,111	78,501	98,836	181,413
Railway rolling-stock.....	37	30,515	61,794	84,264	92,804	181,250
Miscellaneous chemical products.....	232	29,214	50,197	83,755	89,661	177,661
<b>Totals, Fifteen Leading Industries—</b>						
1945.....	9,650	418,314	773,177	2,251,248	1,441,228	3,815,641
1944.....	10,092	519,491	950,891	2,680,140	1,866,935	4,681,490
<b>Grand Totals, All Industries—</b>						
1945.....	29,050	1,119,372	1,845,773	4,473,669	3,564,316	8,250,369
1944.....	28,483	1,222,882	2,029,621	4,832,333	4,015,776	9,073,693
Percentages of Fifteen Leading Industries to All Industries, 1945..	33.2	37.4	41.9	50.3	40.4	46.2

### Manufacturing Industries in Urban Centres

The prosperity of most of the cities and towns of Canada, especially in the east, is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully occupied population. In the west the cities are more largely distributing centres, though manufactures are rapidly increasing there also.



↑ Manufacturing stockings in an Ontario plant. These single-unit, single-head knitting machines make 54-gauge full-fashioned hose. Each machine turns out two stockings per hour.

Stocking "blank" is seamed at foot and leg. →



The extent to which the manufacturing industries of Canada are concentrated in urban centres is indicated by the fact that in Ontario 89·9 p.c. of the gross manufacturing production of the province in 1945 was contributed by cities and towns having a gross production of over \$1,000,000 each. In Quebec the percentage was 91·5, while in the Maritime Provinces and British Columbia, where sawmilling, fish-packing and dairying are leading industries, the proportions fell to 70·4 and 76·2 p.c., respectively. In the Prairie Provinces, the leading industries are based on the agricultural resources—grain-growing, cattle-raising and dairying—and to a lesser extent on industries providing for the more necessary needs of the resident population. But even so, the urban concentration of industry is high, especially in Manitoba, the percentages being: Manitoba, 90·2, Saskatchewan, 79·3; and Alberta, 84·8.

## Urban Centres with Manufacturing Production of Over \$35,000,000 in 1945

NOTE.—Statistics cannot be published for Arvida, Quebec; Copper Cliff, Ontario; and North Vancouver, British Columbia, since statistics for places with less than three establishments, or for cities and towns with three or more establishments, when one establishment has 75 p.c. or two establishments 90 p.c. of the total production, cannot be published.

Urban Centre	Establishments	Employees	Salaries	Cost of	Cost	Gross
			and Wages	Fuel and Electricity	of Materials	Value of Production
	No.	No.	\$'000	\$'000	\$'000	\$'000
Montreal, Que.....	3,404	181,679	304,248	15,604	600,919	1,144,175
Toronto, Ont.....	3,482	146,335	244,055	11,765	496,205	961,737
Hamilton, Ont.....	482	50,520	89,639	11,611	166,350	351,676
Windsor, Ont.....	241	28,826	63,515	4,053	167,675	280,744
Vancouver, B.C.....	992	37,599	66,144	3,443	137,118	265,035
Winnipeg, Man.....	716	26,206	40,116	2,530	117,454	197,524
Montreal East, Que.....	19	3,471	6,688	4,376	90,553	115,317
Port Colborne, Ont.....	22	2,747	5,075	2,331	71,926	103,794
Kitchener, Ont.....	156	13,344	20,807	1,107	52,645	97,599
Edmonton, Alta.....	195	7,368	11,742	702	68,515	93,361
Leaside, Ont.....	47	9,963	19,583	527	63,106	89,889
Sarnia, Ont.....	43	6,297	12,760	5,217	47,868	88,986
Calgary, Alta.....	216	6,673	11,082	1,698	56,067	87,601
London, Ont.....	240	13,733	21,702	1,215	35,744	82,455
Oshawa, Ont.....	51	7,962	16,175	875	54,077	80,262
St. Boniface, Man.....	55	3,453	5,951	478	61,805	80,034
New Toronto, Ont.....	27	7,084	13,801	1,207	40,713	79,983
Quebec, Que.....	333	17,547	25,273	2,759	38,939	79,981
Peterborough, Ont.....	85	8,625	14,254	829	43,090	67,961
Welland, Ont.....	51	8,518	15,726	3,732	27,616	64,345
St. Catharines, Ont.....	94	9,351	16,630	1,003	32,277	61,830
Brantford, Ont.....	123	12,245	19,812	1,102	27,093	58,689
Trail, B.C.....	17	4,284	9,482	5,214	28,939	58,130
Sault Ste. Marie, Ont.....	48	5,790	11,656	3,871	29,842	56,360
Three Rivers, Que.....	73	6,989	11,151	4,334	25,040	51,431
Niagara Falls, Ont.....	62	6,325	11,674	4,226	18,837	51,429
Longueuil, Que.....	19	5,093	11,633	334	14,818	51,194
Ottawa, Ont.....	203	9,413	15,030	1,003	21,250	50,362
Shawinigan Falls, Que.....	41	5,220	9,488	5,773	20,862	48,277
Lachine, Que.....	39	6,667	12,813	780	16,233	46,746
New Westminster, B.C.....	100	5,209	9,160	568	23,867	44,563
Saint John, N.B.....	116	4,387	6,852	785	28,861	43,780
Sherbrooke, Que.....	87	8,050	11,226	786	19,097	42,573
Halifax, N.S.....	116	7,135	12,988	581	18,486	42,075
Regina, Sask.....	108	3,150	5,278	977	26,483	39,912
Saskatoon, Sask.....	86	2,319	3,575	425	29,878	39,049



Motor coaches on the production line of a large Fort William plant.

## *Employment in Manufactures*

The Dominion Bureau of Statistics compiles each month statistics of employment, payrolls and man-hours in manufacturing as well as in certain non-manufacturing industries, information being obtained from establishments employing 15 or more persons. In view of the concentration of factory employment in the larger enterprises, the coverage of total workers in these industries in the monthly surveys is particularly high. In the first nine months of 1947, returns were received from an average of 9,210 manufacturers, employing an average staff of 1,037,000 men and women, whose weekly salaries and wages averaged \$37,229,000.

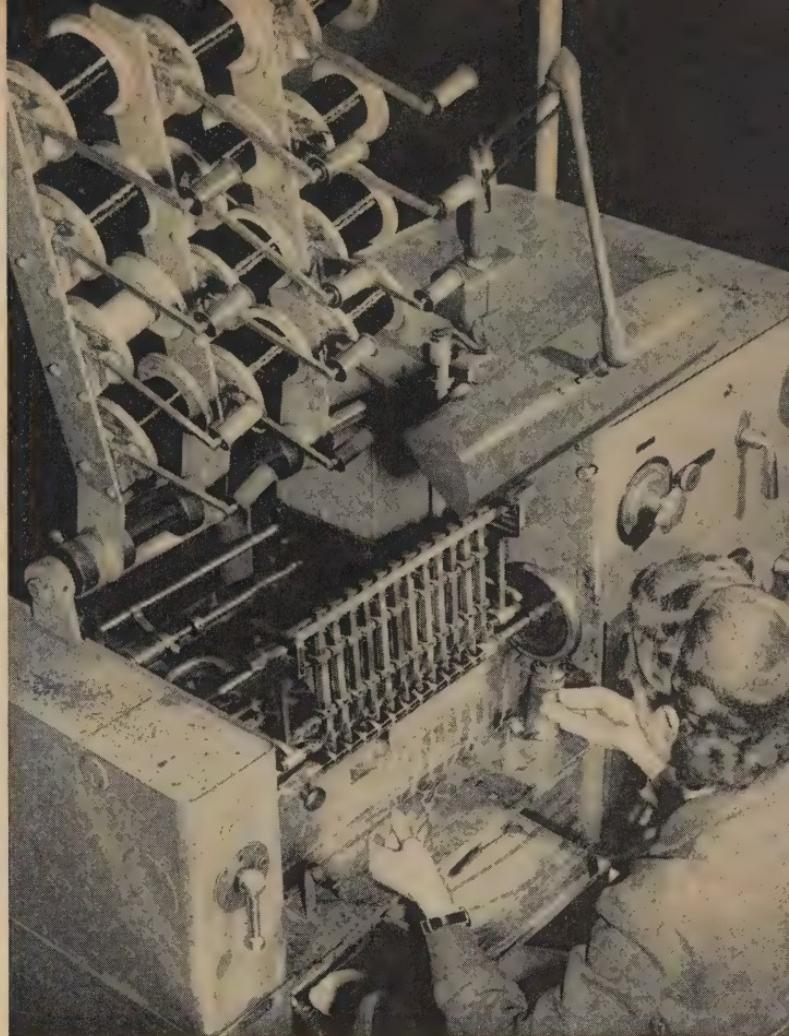
A brief review of the situation in the post-war period shows that, immediately after V-J Day, the employment index for manufacturing, at Sept. 1, 1945, was 198·6, or 14 p.c. below the figure at Oct. 1, 1943, the wartime peak. During the reconversion period, the index continued to decline, until the post-war minimum of 179·9 was reached at Jan. 1, 1946. As a result of the pent-up demand at home and abroad for manufactured articles, an upward movement soon became evident, although there were marked changes in the distribution of the workers reported in manufacturing. At Sept. 1, 1947, the index stood at 203·3; this was 76 p.c. above the figure at the outbreak of the War, although it was 12 p.c. lower than that at Sept. 1, 1943.

With the exception of the seasonal decline at Jan. 1, which was below normal for that time of year, recorded employment in manufacturing increased steadily during the first nine months of 1947, normally a period of seasonal activity. The index averaged 197·1, compared with 184·4 in the first nine months of 1946. The early part of 1947 was relatively free of labour-management disputes, while the strikes that were called had a less serious effect upon the general situation than those in the preceding year. Another favourable factor in the period under review was the greater availability of material in most industries.

Of the total employees reported by manufacturers participating in the monthly survey at Sept. 1, 1947, 238,638 or 223 per 1,000 were women, a proportion considerably smaller than that of 236 per 1,000 workers, indicated 12 months earlier. In the year, the reported number of men increased by 10·3 p.c., while the number of women rose by only 3·1 p.c. The indicated changes in the proportion of workers of the two sexes have been accompanied by geographical shifts in the distribution of employment in manufacturing since the end of the War. Thus such industries in the Maritime Provinces, Quebec and British Columbia employed at Sept. 1, 1947, smaller proportions of the Dominion total of factory workers than were indicated at Sept. 1, 1945, while in Ontario there was an increase in this comparison.

The index of aggregate payrolls has followed the same general trend as that of employment during the post-war period, although the increase was relatively greater, due to upward revisions of wage-rates in many industries and establishments. The average weekly earnings of salaried employees and wage-earners employed by the co-operating manufacturers were \$37.15 at Sept. 1, 1947, compared with \$32.71 at Sept. 1, 1946, and \$32.03 at Sept. 1, 1943. The average hours worked by hourly-rated employees in manufacturing, which had stood at 42·7 in the week of Sept. 1, 1946, were given as 42·3

Reconversion to peace-time production in many industries has meant the development of new techniques, layout and machinery design to facilitate more rapid output. This machine, capable of winding, simultaneously, twelve coils for telephone ringers, has replaced an earlier model winding a single coil.



hours in the week of Sept. 1, 1947, when the hourly earnings averaged 82·2 cents, an increase of 11·6 cents as compared with a year previously.

**Monthly Indexes of Employment in Manufactures, 1942-47**  
(1926=100)

Month	1942	1943	1944	1945	1946	1947
Jan. 1.....	187.1	219.6	226.4	212.7	179.9	190.6
Feb. 1.....	191.2	222.1	227.3	215.0	182.8	193.9
Mar. 1.....	195.7	223.4	226.5	214.3	182.6	194.5
Apr. 1.....	199.4	224.1	225.5	212.9	184.9	195.2
May 1.....	202.3	222.9	223.2	210.6	186.2	195.8
June 1.....	205.9	224.1	223.1	209.0	184.7	197.6
July 1.....	209.5	226.5	225.8	207.2	187.2	200.6
Aug. 1.....	212.4	227.7	225.0	204.1	184.2	202.5
Sept. 1.....	215.6	229.9	226.2	198.6	187.2	203.3
Oct. 1.....	218.3	231.4	223.7	188.3	188.4	203.6
Nov. 1.....	218.6	230.8	221.3	186.3	192.8	—
Dec. 1.....	221.7	230.9	220.1	184.2	194.2	—



# Transportation Communications

IMPROVED and ever-expanding means of transportation by land, air and water have characterized the development of the distributive agencies of Canada's economy. Indeed, in some aspects of this advance, such as the transport of freight by air in the northwest, Canada has pioneered. The following treatment shows that the country is abreast of the times not only in transportation but also in the means whereby distributive facilities are made more efficient.

## *Steam Railways*

It would be difficult to over-estimate the importance of the railways in the building of Canada and to-day, with its relatively small population thinly distributed along the southern strip of a vast area 4,000 miles in length and its extensive external and internal trade, a large and costly transportation system is a necessity.

One of the first great undertakings to engage the attention of the Dominion of Canada after Confederation in 1867 was the building of a transcontinental railway to link the east and west. Surmounting tremendous difficulties, the Canadian Pacific Railway was completed in 1885 and the vast hinterland of the Canadian west was opened for settlement. The wheat boom during the period 1900-13 brought prosperity and rapid economic expansion and precipitated another era of railway development. Two other transcontinental systems, the Canadian Northern and the Grand Trunk Pacific (with the government-built National Transcontinental) were built, and total Canadian railway mileage increased from 18,140 in 1901 to 30,795 in 1914.

Construction continued in the war years and during 1914-18 nearly 7,500 miles of railway were opened to traffic, bringing the total up to 38,252 miles. Much of the financing of the Canadian Northern and Grand Trunk Pacific lines was aided by the Federal and Provincial Governments guaranteeing the interest and principal of their debentures. Immigration was stopped by the War, traffic in the Western Provinces did not develop as anticipated, and these two railways and also the Grand Trunk Railway, which was constructing the Grand Trunk Pacific, soon were unable to meet their interest payments. A commission was appointed on whose advice the Federal Government took over these railways and amalgamated them with the Government-owned railways, some of which had been constructed as a part of Confederation. The resulting Canadian National Railways had a total mileage in 1923 of 21,805 miles, including mileage of the Grand Trunk lines in the United States; this mileage had grown to 23,437 by 1946.

The Provincial Government of British Columbia also took over a bankrupt railway (348 miles) and the Canadian National and Canadian Pacific

jointly took over the Northern Alberta Railway (923 miles), which had been under private ownership but was unable to continue operations. The Province of Ontario built and operated a railway (574 miles) primarily for colonization purposes. Thus, the publicly operated railways in Canada are a combination of lines, some of which were constructed for political reasons or colonization purposes and some taken over from private companies faced with bankruptcy.

As a group these railways have not been prosperous: the Canadian National Railways earned a surplus only in 1926 and 1928, and in the five war years 1941-45, inclusive. During the period 1923-46 the net result was a cash deficit of \$470,379,800 exclusive of capital losses of \$89,292,974. These losses do not include any interest on advances by the Federal Government to meet operating deficits, which were charged against the system up to 1937.

With the outbreak of the Second World War, industrial production increased rapidly and freight traffic of the railways showed corresponding

*New equipment in service on Canadian railways. The streamlined bedroom-buffet lounge car and rest-room facilities are especially designed for the comfort and convenience of the passenger.*



increases. Passenger traffic showed even larger increases. The table below shows railway data for 1928, the pre-war peak year; 1933, the lowest of the depression years; and 1942-46, years affected by war and post-war conditions. Since the end of the War, passenger traffic has declined more rapidly than freight traffic, due mainly to the influence of the motor-bus and private automobile which were unrestricted in 1946 by gasoline and tire shortages, although new motor-vehicles were still insufficient to meet the demand.

#### *Summary Statistics of Canadian Railways, 1928, 1933, 1938 and 1942-46*

Year	Freight Carried One Mile	Passengers Carried <sup>1</sup>	Em- ployees	Gross Operating Revenues	Operating Expenses
	Tons	No.	No.	\$	\$
1928.....	41,610,660,776	40,592,792	187,710	563,732,260	442,701,270
1933.....	21,092,594,200	19,172,193	121,923	270,278,276	233,133,108
1938.....	26,834,696,695	20,911,196	127,747	336,833,400	295,705,638
1942.....	56,153,953,000	47,596,602	157,740	663,610,570	485,783,584
1943.....	63,915,074,000	57,175,840	169,663	778,914,565	560,597,204
1944.....	65,928,078,992	60,335,950	175,095	796,636,786	634,774,021
1945.....	63,349,094,918	53,407,845	180,603	774,971,360	631,497,562
1946.....	55,310,257,842	43,405,177	180,383	718,510,764	623,529,472

<sup>1</sup> Duplications included.

The trend toward amalgamation of railways during the past half-century brought with it the elements of monopoly and possible over-charge, and it was considered necessary to set up an authority to control freight and passenger rates as well as other matters relating to construction and operation of railways. This control is in the hands of the Board of Transport Commissioners.

#### *Electric Railways*

Widespread changes in urban transport systems have been taking place in recent years. Electric street railways, at one time the sole type of conveyance, have been replaced or supplemented in many Canadian cities by the motor-bus and the trolley-bus, while a large number of interurban electric lines have been abandoned. At the end of 1946, electric cars were in operation in 22 Canadian cities, compared with 43 in 1926. In many cases, the same transportation company has remained in operation, using motor-buses instead of electric cars, but in a considerable number of cities in Ontario and Western Canada the transportation services are owned and operated by the municipalities. Windsor is at present the largest city where buses, exclusively, are operated. Trolley-buses are in use in Montreal, Toronto, Kitchener, Winnipeg, Calgary and Edmonton.

Equipment owned by companies or municipalities operating electric railways in 1945 included 3,512 electric passenger cars, 1,454 buses and 67 trolley-buses. Passengers carried by these vehicles reached an all-time high in that year, numbering 1,316,572,000, an increase of 5.1 p.c. over 1944. Electric cars carried 83 p.c. of the traffic, motor-buses 16 p.c. and trolley-buses 1 p.c.

#### *Roads and Highways*

Construction of roads suitable for motor traffic has been one of the principal items of provincial expenditure during the past 25 years. The

Federal Government has built roads in National Parks and has granted subsidies to the provinces, first in 1920 and again as an unemployment relief measure in 1930-39, but has not constructed any rural roads outside Dominion lands.

At the end of 1945 there were in Canada 131,453 miles of surfaced roads and 420,562 miles of earth roads. Of the surfaced roads, 113,991 miles were gravel or crushed stone, 14,826 bituminous surfaced and 2,513 portland cement concrete.

The expenditures for 1945 amounted to \$84,164,757, including \$28,350,266 for construction of roads, \$3,829,461 for construction of bridges, \$45,748,872 for maintenance of roads, \$3,231,073 for maintenance of bridges, \$20,045 for footpaths and sidewalks, and the remainder for general expenses.

### *Motor-Vehicles*

The number of motor-vehicles registered in Canada reached a high point in 1946 at 1,622,463. The previous peak of 1,572,784 was recorded in 1941, after which the restrictions of wartime caused a reduction in the number of passenger cars in use, though registrations of commercial cars and buses increased each year throughout the war period. However, in 1946 the number of passenger vehicles, 1,234,006, had almost reached the 1941 figure, while the number of commercial cars, 364,078—including 355,095 trucks, 5,788 buses and 3,195 miscellaneous vehicles—continued to increase. Motor-cycles in 1946 numbered 17,163 as compared with 14,477 in 1941.

Provincial revenues from motor-vehicle registrations amounted to \$31,856,824 in 1945, a figure slightly higher than that for 1941.

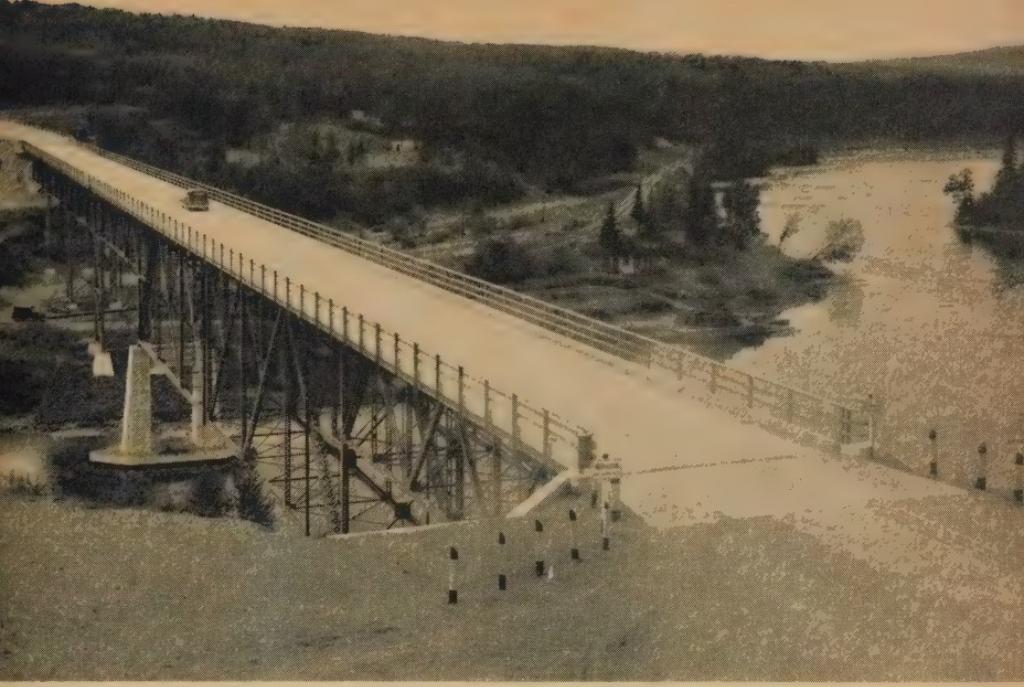
The following table shows the number of motor vehicles registered in the different provinces during the war period.

### *Motor-Vehicles Registered, 1938-46*

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
1938....	7,992	51,214	37,110	205,463	669,088	88,219	109,014	107,191	119,220	1,394,853
1939....	8,040	53,008	38,116	213,148	682,891	88,864	119,018	113,702	122,087	1,439,245
1940....	8,070	57,873	39,000	225,152	703,872	90,932	126,970	120,514	128,044	1,500,829
1941....	8,015	62,805	41,450	232,149	739,194	96,573	131,545	126,127	134,499	1,572,784
1942....	7,537	58,872	37,758	222,622	715,380	93,147	130,040	125,482	132,893	1,524,153
1943....	8,032	59,194	40,205	222,676	691,615	93,494	133,839	127,559	134,691	1,511,845
1944....	8,412	57,933	39,570	224,042	675,057	93,297	140,992	127,416	135,090	1,502,567
1945....	8,835	56,699	41,577	228,681	662,719	92,758	140,257	130,153	134,788	1,497,081
1946....	9,192	62,660	44,654	255,172	711,106	101,090	148,206	138,868	150,234	1,622,463

<sup>1</sup> Includes registrations in Yukon.

**Motor-Carriers.**—Motor-buses and motor-trucks have increased steadily in importance in the transportation field, providing as they do freight and passenger service between numerous localities, both with and without railway facilities. During the war years rationing of gasoline, tires and motor-vehicles restricted the service considerably. The heavy short-haul traffic of employees to and from munition factories, air fields, etc., obscured, in the statistics, the curtailment in interurban traffic, but in 1946, when buses began to be more



*The Nipigon River Bridge on Highway No. 17, Northern Ontario.*

plentiful and rationing was abandoned, vehicle-mileage of inter-city and rural transit systems showed an increase of 14.7 p.c. over 1945 mileage, while the number of passengers increased 6.7 p.c.

#### *Statistics of Motor-Carriers, 1942-45*

Item	1942	1943	1944	1945
Investments in land, buildings and equipment .....	\$ 1	49,940,584	54,186,461	59,400,753
Revenues.....	\$ 67,527,491	76,020,555	81,707,604	88,157,490
Equipment—				
Trucks.....	No. 8,419	{ 7,037	6,772	6,486
Tractor, semi-trailers.....	"	2,069	2,063	2,063
Trailers.....	" 1,251	974	1,103	1,154
Buses.....	" 2,529	2,992	3,104	3,322
Passengers carried.....	" 147,599,000	221,012,000	234,809,000	239,858,000
Freight—inter-city and rural .....	ton 10,866,000	11,144,000	9,605,000	10,853,000

<sup>1</sup> Not available.

#### *Shipping*

Canadian shipping is divided into two classes: (1) foreign service, and (2) coasting service. The first is subdivided into: (a) seagoing, i.e., between Canadian ports on the Pacific and Atlantic Oceans and on the St. Lawrence up to Montreal, and ports in other countries, including fishing at sea; and (b)

inland, i.e., between Canadian and United States ports on the Great Lakes and connecting rivers. The second is service between Canadian ports, including fishing in Canadian waters.

Shipping statistics are collected only from ports at which there is an official of the Customs and Excise Division of the National Revenue Department, and consequently do not include shipping on Mackenzie River, Lake Winnipeg, etc.

### Vessels Entered at Canadian Ports, 1938-46

Year	Foreign Service <sup>1</sup>		Coasting Service		Totals	
	No.	Tons Register	No.	Tons Register	No.	Tons Register
1938 <sup>2</sup> . . . . .	42,582	45,603,055	75,537	44,471,834	118,119	90,074,889
1939 <sup>2</sup> . . . . .	43,601	44,775,116	73,386	45,386,457	116,987	90,161,573
1940 <sup>2</sup> . . . . .	46,241	46,666,396	78,212	44,361,232	124,453	91,027,628
1941 <sup>2</sup> . . . . .	25,122	32,579,900	79,951	50,471,166	105,073	83,051,066
1941 <sup>3</sup> . . . . .	26,203	31,452,400	77,592	48,111,082	103,795	79,563,482
1942 <sup>3</sup> . . . . .	24,066	25,640,763	73,366	43,990,764	97,432	69,631,527
1943 <sup>3</sup> . . . . .	22,901	26,345,562	65,066	40,300,778	87,967	66,646,340
1944 <sup>3</sup> . . . . .	23,786	28,356,681	64,999	43,776,497	88,785	72,133,178
1945 <sup>3</sup> . . . . .	24,431	29,655,984	65,410	48,098,201	89,841	77,754,185
1946 <sup>3</sup> . . . . .	26,461	30,367,071	67,014	45,559,014	93,475	75,926,085

<sup>1</sup> Sea-going and inland international.

<sup>2</sup> Year ended May 31.

<sup>3</sup> Calendar year.

### Harbours

Facilities provided for the co-ordination of land and water transportation at Canada's many ports include docks and wharves, warehouses for general cargo, cold-storage warehouses, harbour railway and switching connections, grain elevators, coal bunkers, oil storage tanks and, in the chief harbours, dry-dock accommodation. Eight of the principal harbours—Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver and Churchill—are administered by the National Harbours Board, seven others by commissions that include municipal as well as Federal Government appointees, and the remainder by harbour masters directly under the authority of the Department of Transport.



The "Abegweit", world's largest ice-breaking train ferry, in service between Prince Edward Island and New Brunswick. The largest all-welded vessel ever built in Canada, the "Abegweit" has a capacity of 19 railway freight cars, 60 automobiles and 950 passengers.



Montreal Harbour, which provides extensive facilities to ocean-going vessels, including 105 berths, 26 transit sheds, 4 grain elevators with a total capacity of 15,000,000 bu., and cold-storage warehouse capacity of 3,000,000 cu. ft

### Canals

There are six canal systems under the Department of Transport, namely : (1) between Fort William and Montreal, (2) from Montreal to the International Boundary near Lake Champlain, (3) from Montreal to Ottawa, (4) from Ottawa to Kingston, (5) from Trenton to Lake Huron, and (6) from the Atlantic Ocean to the Bras d'Or Lakes in Cape Breton. These canals have opened to navigation from the Atlantic about 1,890 miles of waterways. Under the Department of Public Works or other authority are minor canals and locks that facilitate local navigation.



A Trans-Canada Air Lines DC-3 over Quebec City. This type of aircraft is used by T.C.A. for transcontinental flights.

The Great Lakes and St. Lawrence River form one of the busiest waterways in the world. More traffic passes up and down the Detroit River than any other waterway and the traffic through the canals at Sault Ste. Marie in 1929 reached a total of 92,616,898 tons, more than through the Panama and Suez Canals combined. Due to heavy war requirements for iron ore this traffic was increased to a new peak of 120,200,814 tons in 1942. In 1946 the total was 91,740,696 tons.

#### Civil Aviation

Canada is to-day well supplied with airports and aerodromes scattered throughout the country and is in a position to meet the expansion of aviation

that has resulted from war and post-war developments. During the war years 207 airports and aerodromes for Western Hemisphere operations and other war purposes were constructed or improved by the Department of Transport under the British Commonwealth Air Training Plan. These were additional to the 45 airports, aerodromes and emergency landing fields previously owned and operated by the Department.

Under the post-war reconstruction plan, the Department of Transport has retained what airports were required. Municipal airports which were taken over during the War have been returned to the respective centres and some of the surplus aerodromes have been made available to municipalities that had not previously been air-minded.

The airports, airfields and anchorages in Canada are classified as follows:

Department of Transport airports (land) and airfields....	143
Other Federal Government airports (land and water), airfields and anchorages .....	68
Provincial air services airports (water) and anchorages..	23
Municipal airports (land and water), airfields and anchorages .....	62
Private airlines airports (land) and airfields.....	19
Private airlines airports (water) and anchorages .....	40
United States Army Air Forces airports (land) and air- fields .....	3
Private, miscellaneous and unlicensed .....	260
 TOTAL .....	 618

Indicative of the expansion of private and commercial flying with the lifting of all wartime restrictions, some 29 active flying clubs, employing 105 aircraft were in operation in 1947. The clubs, members of the Royal Flying Clubs Association, represented a membership of 3,277. During the year ended Mar. 31, 1947, a total of 4,497 instructional flying hours were recorded by these clubs. In addition to flying clubs organized on a non-profit basis, 29 commercial flying schools were in operation, employing 96 aircraft. Student pilots enrolled in flying clubs and commercial flying schools in the year ended Mar. 31, 1947, numbered more than 1,500.

#### *Civil Aviation Certificates and Licences in Force, January, 1946, and July, 1947*

Type	In Force Jan. 1, 1946	In Force July 31, 1947	Increase
Private air pilot .....	389	1,431	1,042
Commercial and transport pilot .....	1,038	2,338	1,300
Airport traffic control officer .....	71	116	45
Air engineer .....	962	1,437	475
Registration of aircraft—			
Private.....	14	177	163
Commercial.....	367	1,442	1,075

**Government Air Policy.**—The Government's air policy, as outlined in 1943, stated that Trans-Canada Air Lines would "continue to operate all transcontinental systems and such other services of a mainline character as may from time to time be designated by the Government" and that Trans-Canada was "the sole Canadian agency which may operate international air services". Secondary services would be left to private enterprise.

The Air Transport Board was created in 1944 in lieu of the Board of Transport Commissioners to advise on questions of general policy in connection with air transport, to investigate and recommend the establishing of new air routes, and to license all commercial air-transport services.

**Trans-Canada Air Lines.**—Trans-Canada Air Lines has been in operation since 1937. The Trans-Canada Air Lines Act was amended in 1945, increasing the capital from \$5,000,000 to \$25,000,000 and providing authority to create corporations to operate and maintain air services under contract with Trans-Canada Air Lines. Trans-Canada Air Lines is now operating over a total of 6,511 miles of air routes in Canada, including routes to New York, Chicago, Cleveland, Duluth, Seattle and to Newfoundland, and 3,030 miles across the Atlantic between Montreal and Prestwick, Scotland. Another transatlantic service between Montreal and Shannon, Ireland, commenced in the autumn of 1947.

Trans-Canada Air Lines carried 305,442 revenue passengers (exclusive of the Atlantic service) in 1946 as compared with 183,121 in 1945 and 158,884 in 1944; 2,325,977 lb. of mail as compared with 3,429,232 lb. in 1945 and 3,739,105 lb. in 1944; and 1,043,713 lb. of air express as compared with 950,323 lb. in 1945 and 856,016 lb. in 1944. T.C.A. now utilizes 50 aircraft.

**Canadian Pacific Air Lines.**—Canadian Pacific Air Lines consolidated into one organization a number of independent commercial operators that had been chiefly engaged in servicing the mining industry in northern Canada including Canadian Airways Limited, Arrow Airways Limited, Ginger Coote Airway, Prairie Airways, Mackenzie Air Services, Yukon Southern Air Transport Limited, Dominion Skyways Limited, Quebec Airways, Wings Limited, Starratt Airways and Transportation Company.

The component companies of Canadian Pacific Air Lines flew 6,813,907 revenue miles in 1946. This compares with 5,373,403 miles in 1945 and 5,984,602 miles in 1944. Passengers carried totalled 175,461 in 1946, 125,110 in 1945 and 104,166 in 1944. Freight transported totalled 16,514,741 lb. in 1946, compared with 9,419,556 lb. in 1945; and mail carried amounted to 1,722,733 lb. in 1946 compared with 1,253,537 lb. in 1945.

**Independent Air Lines.**—Although many of the principal operating companies have been absorbed by C.P.A., there still remain independent organizations in this field. Maritime Central Air Lines operates a mail, passenger and express service between Moncton, Saint John, Blissville, Summerside, Charlottetown and New Glasgow; the M. and C. Aviation Company operates a licensed air-mail, passenger and express service from Prince Albert to northern Saskatchewan points. There are also the Northern Airways Limited, located at Carcross, Yukon, and Leavens Bros. Air Services Limited at Toronto.

**Non-Scheduled and Charter Operations.**—A large portion of commercial flying in Canada is made up of non-scheduled and charter operations and by June 30, 1947, some 200 licences had been issued to operators coming under this classification. Scheduled operations are, for the most part, confined to the populated and industrialized areas where air transport is an adjunct to other transportation facilities. In the great hinterland of Canada, the aircraft is the only means of rapid and safe long-distance travel.

The installation of air navigation aids along established air routes into the far north with terminals at Dawson in the Yukon; Aklavik at the mouth of the Mackenzie River; Coppermine on Coronation Gulf and Goose in Labrador, have facilitated the use of larger types of aircraft and have made both regular and charter carrier services faster and safer.

Revenue passengers carried by scheduled, non-scheduled and charter operators in the first four months of 1947 numbered 180,864 as compared with 147,804 in the same period of 1946; freight carried amounted to 10,932,083 lb. as compared with 5,687,194 lb. These figures do not include passengers and goods carried to and from foreign countries.

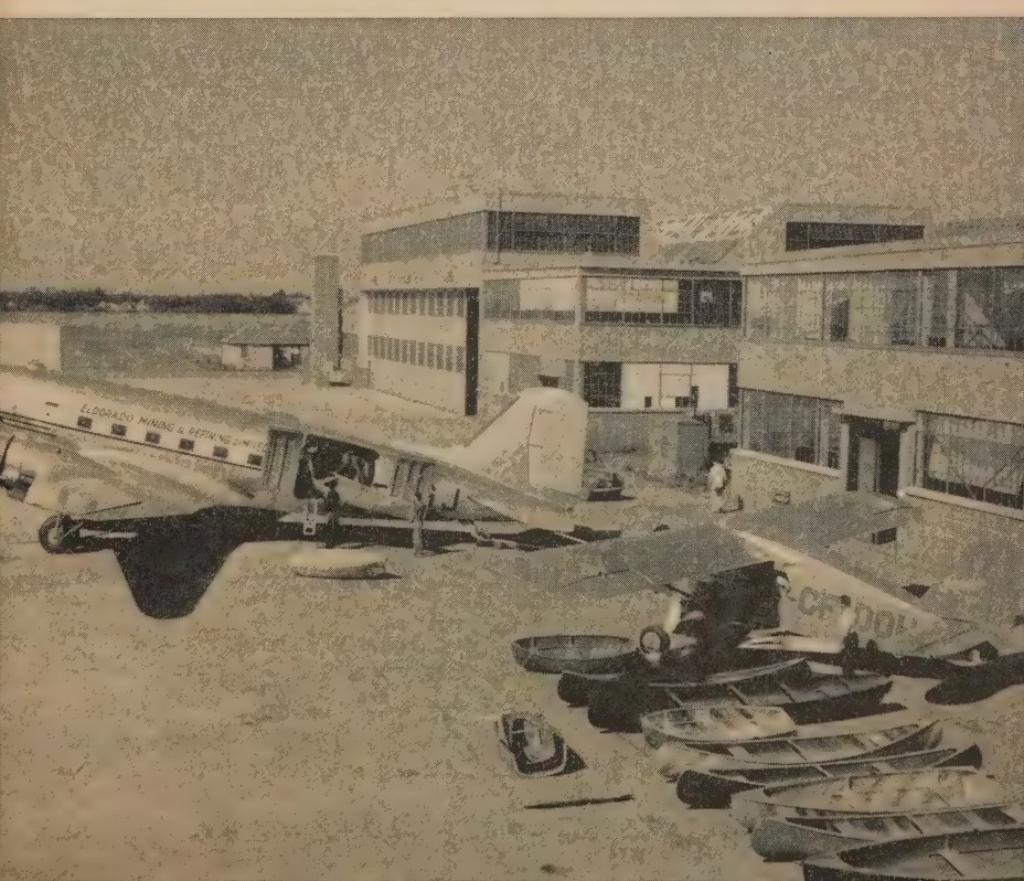
Five operating certificates have been issued to foreign scheduled services flying into Canada: four to United States air lines and one to British Overseas Airways Corporation with Canadian terminal at Montreal Airport, Dorval.

**Trans-Atlantic Air Service.**—The first flight of the Canadian Government Trans-Atlantic Air Service between Canada and Great Britain took place on July 22, 1943. From then until Mar. 31, 1947, this service carried 8,370 passengers, 215,000 lb. of goods and 2,403,500 lb. of mail.

Trans-Canada Air Lines, operating under the name of Trans-Canada Air Lines (Atlantic), is now flying ten round trips per week between Prestwick and Montreal, and between Shannon, Ireland, and Montreal, using North Star aircraft. These aircraft are a Canadian development of the original DC-4, using British Rolls-Royce engines.

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*Canoes for use in Northern Canada being loaded on aircraft at Edmonton, Alta.*





A T.C.A. hostess serving refreshments to passengers.

The northern route, either by way of Gander, Newfoundland, or Goose, Labrador, is followed during the summer months. Treaty agreement with Newfoundland requires that all transatlantic services, with the exception of Trans-Canada Air Lines, shall use Gander, weather permitting.

By treaty agreement with Portugal, T.C.A. has the right to land in the Azores, should weather conditions make the operation of the northern route undesirable.

The radio-communications system for transatlantic air operation, with headquarters at Moncton, N.B., is operated by Trans-Canada Air Lines, as agent for the Department of Transport.

The Canadian Meteorological Service now has stations at both Gander, Newfoundland, and Goose, Labrador, as well as at Montreal, which are largely for transatlantic operations. The Dominion-wide radio range system extends from Montreal through intermediate points to both Goose and Gander.

**International Civil Aviation Organization.**—In accordance with the provisions of the Interim Agreement, the first Interim Assembly of the Provisional International Civil Aviation Organization was convened at the city of Montreal, on May 21, 1946. At this meeting, Canada (Montreal) was chosen as the permanent seat of the organization. Since that meeting, the Interim Council and Air Navigation Committee have been in almost constant session.

Technical experts from member states were brought together at divisional and regional air navigation meetings for the purpose of preparing standards and procedures for the safe and efficient operation of international air service. Up to June 30, 1947, there were 15 such meetings: 10 were held at Montreal, Canada; one at Washington, U.S.A.; one at Paris, France; one at Cairo, Egypt; one at London, England; and one at Melbourne, Australia.

Canada was represented at all of these meetings, with the exception of the regional navigation meetings held at Paris and Cairo, and sent

more than 50 delegates who were representative of all phases of aviation. These meetings prepared the ground for the first assembly of the International Civil Aviation Organization, which was convened at Montreal on May 6, 1947.

The Canadian air regulations are being amended, where necessary, to conform with the International Civil Aviation Organization in all matters having a bearing on international aviation.

### *Telegraphs*

Six telegraph systems are operated in Canada, four in conjunction with the railways, one by the Dominion Government and one small system that is owned and operated independently. One United States company uses lines across Canadian territory; one private Canadian company operates a wireless system; and three cable companies, in addition to the telegraph companies, operate cables from Canadian stations. In all, there are 22 cables between Canada and England, Azores, Australia, New Zealand, Newfoundland, St. Pierre and Miquelon, and Bermuda, and two cables between North Sydney and Canso, N.S.

These systems have 395,545 miles of telegraph wire in Canada, 5,436 miles outside of Canada, and 32,813 nautical miles of submarine cable between Canada and other countries. Multiple circuits normally produce 844,558 miles of channels for telegraphic use. During 1946 a total of 18,441,841 telegrams and 1,845,539 cablegrams, excluding messages between foreign countries, were handled by these systems.

### *Telephones*

There were 3,151 telephone systems in Canada in 1945, with 6,333,761 miles of wire and 1,848,794 telephones. The estimated number of conversations during the year was 3,210,280,400 or 1,736 per telephone. The transfer from manually operated telephone switchboards to automatic has continued, although it has been somewhat restricted by scarcity of equipment since 1941. In



*Switchboards in a long-distance telephone centre.*



The economic problem of making telephone service available in remote areas was solved recently in the Laurentian village of Lac Supérieur by the installation of a system that utilizes power wires to carry the telephone current. The illustration shows the testing of the equipment that superimposes the relatively weak telephone current on the power circuit.

1945, 56 p.c. of all telephones were dial telephones; 93 p.c. of these were in urban centres of over 10,000 population, where they comprised 78 p.c. of the telephones in use.

### **Radio**

On Feb. 9, 1932, the Judicial Committee of the Imperial Privy Council, to whom the matter had been reported, ruled that the control and regulation of radio-communication rested within the jurisdiction of the Dominion Parliament. The enactment of the Canadian Radio Broadcasting Act of 1932, by which power was vested in the Canadian Radio Broadcasting Commission to control and regulate radio broadcasting in Canada, followed. At this time the Commission was without a transmission system of its own but proceeded to carry out its responsibilities under the Act in regard to the control of privately owned stations. The nucleus of a nationally owned system was secured in 1933 on the acquisition and operation by the Commission of three stations of the Canadian National Railways at Moncton, Ottawa and Vancouver. The present Canadian Broadcasting Corporation succeeded the Canadian Radio Broadcasting Commission in 1936.

The responsibilities of the CBC as laid down in the Canadian Broadcasting Act of 1936 are to formulate regulations controlling the establishment and operation of networks, the character of any and all programs broadcast

in Canada and the proportion of time that may be devoted to advertising in broadcast programs.

All radio stations in Canada come under the Department of Transport, Radio Division, for technical administration including frequency, operating power, etc., and are licensed by this authority.

At Apr. 1, 1947, there were operating in Canada 120 standard broadcast band stations, of which 11 were Canadian Broadcasting Corporation stations and 109 privately owned stations; also 33 short-wave stations, of which 25 were Canadian Broadcasting Corporation stations and eight privately owned stations.

The number of radio receiving sets in Canada is probably not far below 3,000,000, or about one for every four persons in the population. Private receiving licences number about 1,800,000, many of which cover more than one set. New receiving sets, impossible to purchase during the later war years, are now on the market in considerable quantity.

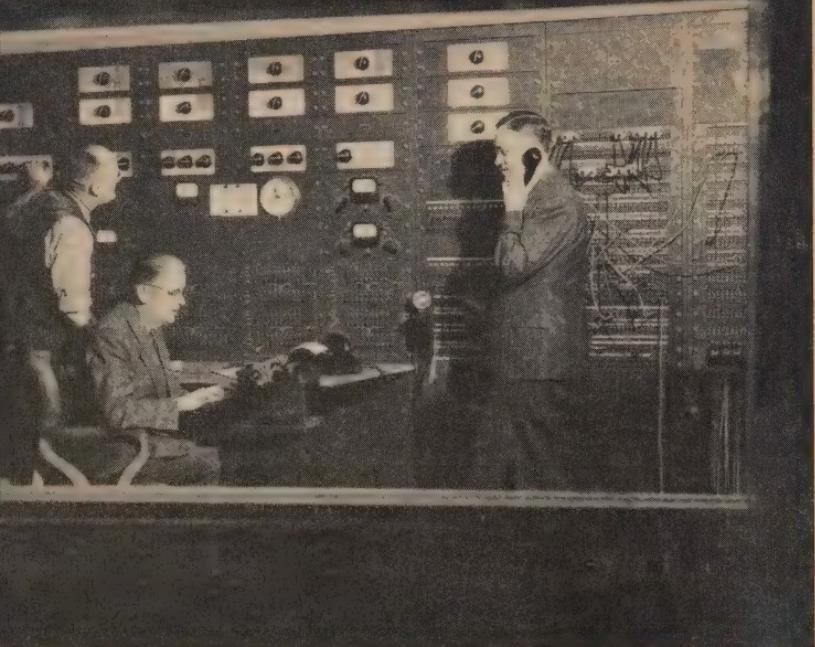
**Canadian Broadcasting Corporation.**—With the return to peacetime conditions, the Canadian Broadcasting Corporation has been able to resume work on its plans for national coverage which were determined in 1936. A new 50 kw. transmitter is being built near Lacombe, Alta., and a site for a similar 50 kw. transmitter has been chosen near Carman, Man. Both transmitters will operate in clear-channel frequencies under the provisions of the North American Regional Broadcasting Agreement. The power of Station CJBC, Toronto, is to be increased to 50 kw. and CBJ, Chicoutimi, Que., to 10 kw. When present construction operations are completed, the CBC will have 13 amplitude-modulation stations—seven of them with 50 kw. transmitters—providing service to nearly all the people in Canada.

The CBC has been active in the development of frequency modulation. Two experimental FM transmitters have been in operation at Montreal and a third at Toronto, and arrangements are being made to establish FM transmitters at Ottawa, Winnipeg and Vancouver. CBC engineers are also making an intensive study of television to determine the conditions under which it can best be introduced in Canada, and observers have been sent to the United States and Great Britain to note latest developments in this field.

**Organization of the CBC.**—The Canadian Broadcasting Corporation is operated as a national public service. Policy is determined by a Board of nine Governors who act as trustees of the national interest in broadcasting.



A youth program  
being broadcast  
over a private  
commercial station.



The nerve-centre of CBC'S Toronto studios—the master control room: 38 programs can be controlled simultaneously on this "board".

The Governors are appointed by the Governor General in Council for three-year terms, and the Chairman is required to devote his full time to performance of his duties. They are chosen to give representation to the main geographical divisions of Canada and various facets of Canadian life. Direction of policy, day-to-day operations, and management of the system are the responsibility of the General Manager and Assistant General Manager. Revenue is derived from an annual licence fee of \$2.50 paid by listeners, and income from commercial operations.

As constituted under the Act, the CBC is designed to operate in the public interest. It is responsible to Parliament as a whole through a Minister of the Crown and from time to time the work of the Corporation is reviewed by a special Committee of the House of Commons.

*Operations.*—The CBC operates all radio networks in Canada; the Trans-Canada and Dominion Networks serve English-speaking listeners from coast to coast, and the French Network serves French-speaking listeners in the Province of Quebec. The Networks are made up from 11 CBC-owned and 101 privately owned stations located across Canada. The Trans-Canada has a maximum outlet of 62 stations; the Dominion a maximum of 37; and the French Network a maximum of 13. For occasional broadcasts of national interest the three networks are joined to form the National Network. In addition to these outlets, the CBC has pioneered in the development of low-powered repeater stations, which operate automatically with the Network, in remote areas of Canada. French-speaking listeners in northern Quebec and on the western prairies are served by short-wave stations, and another is used to reach listeners in the northern coastal regions and interior of British Columbia.

Short-wave receiving stations are maintained at Dartmouth, N.S., at Ottawa and Toronto, Ont., mainly for the reception of British Broadcasting Corporation transmissions. In order to improve reception from Australia and

points in the Pacific area, a new short-wave receiving station is being built at Point Grey, near Vancouver, B.C. As noted above, CBC FM transmitters are operating at Montreal and Toronto.

*Program Service and Development.*—During the year ended Mar. 31, 1947, 59,705 programs were broadcast, taking up 17,843 hours of broadcast time, on the three CBC networks. Of the total hours, 80·6 p.c. was non-commercial service, an increase of 514 hours over the previous year. The CBC originated and produced 78·4 p.c. of all network broadcasts, private stations originated 2·3 p.c. and the remaining 19·3 p.c. were made up of exchange programs from the British Broadcasting Corporation and United States networks.

Light and semi-classical music occupied the greatest number of hours, followed in order by news, dramatic and feature productions, classical music, agricultural programs, informative talks, educational and religious programs. Children's programs, broadcasts of sports events and sports résumés took up the remaining network time, in that order.

Network broadcasting in Canada is made more complicated by the fact that the Dominion lies across five of the world's time zones. In order to bring news broadcasts and other programs to listeners in each of the time zones at suitable hours, CBC administrative, program and engineering headquarters and newsrooms are maintained at Halifax, Toronto, Winnipeg and Vancouver. Decentralization also makes it possible for CBC producers to cater to varying tastes in the five regions, and to employ and develop local talent. The emphasis, however, is on national radio, with the objective of supplying a good balance of entertainment and information to a nation-wide audience.

*Educational Programs.*—A large portion of broadcast time is devoted to programs of an educational nature for both children and adults, in English and French. Each year the CBC presents a series of National School Broadcasts including, during the 1947-48 season, a complete dramatization of Shakespeare's *Hamlet*, with specially composed music. In addition, the CBC co-operates with Provincial Departments of Education in broadcasting special programs related to the courses of study in provincial schools. School broadcasts on the CBC French Network are heard under the title *Radio-Collège*. Programs of an educational nature for adults are presented in a wide variety of discussion-forums, commentaries, talks and semi-dramatized programs.

*CBC International Service.*—Since its inception in February, 1945, the CBC International Service has expanded until now the *Voice of Canada* is heard abroad in ten languages. Built and operated on behalf of the Canadian Government, the transmitters of the International Service, located near Sackville, N.B., send out the strongest signal heard in Europe from North America. During the meetings of the General Assembly in New York, the United Nations continued to use the CBC transmitters for 90 minutes daily, directing reports to Czechoslovakia, Russia, Turkey, Norway, Switzerland, the Netherlands, Poland, France, Greece and Egypt.

Operations during the fiscal year ended Mar. 31, 1947, involved 3,275 hours of broadcasting, made up of more than 10,000 program periods. In addition to areas already served, it is planned to begin regular transmissions to South Africa in the near future.

## *The Post Office*

During the year ended Mar. 31, 1947, mail volume showed continuous expansion and gross postal revenue amounted to \$86,400,951, an increase of \$2,637,945 over the previous fiscal year. Money orders payable in Canada were issued to the value of \$321,728,206 and those payable abroad to the value of \$7,829,498. Post offices in operation on Mar. 31, 1947, numbered 12,033.

Much was done in 1946 and 1947 to restore and improve international mail services which had been disrupted or impaired during the war years. The Canadian Post Office was represented at the Congress of the Postal Union of the Americas and Spain, held at Rio de Janeiro, Brazil, in the summer of 1946; at Lake Success, N.Y., later in the year, when the subject of closer international mail relations between the Universal Postal Union and the United Nations Organization was discussed; and also at the Twelfth Congress of the Universal Postal Union held at Paris, France, in the late spring of 1947. Previous to these conferences, there had been no meetings of representative Postal Administrations since the summer of 1939.

The immediate result of the first of the above-mentioned meetings was that Canadian air-mail postage to many countries was reduced by 50 p.c., and in some cases by more than that amount, effective Nov. 1, 1946. This reduction was made possible because the Congress had confirmed the establishment of an air-mail unit of weight of 5 grammes, which enabled Canada to base its international air-mail postage rate on the quarter-ounce weight unit in place of the half-ounce.

During 1946-47, parcel-post service was restored and improved to numerous countries overseas. Just before the 1946 Christmas mailing season the 20-lb. maximum-weight limit on gift parcels, including those containing food, to the United Kingdom was restored. British authorities also agreed to remove the wartime restrictions which had limited the quantity of any one food mailed in a parcel and the frequency with which such parcels could be sent to an addressee.

Following negotiations with the Postmaster General of the United Kingdom, parcel-post rates were considerably reduced, effective Jan. 1, 1947. To encourage the mailing of parcels of food to individuals in the United Kingdom, steps were taken, in co-operation with the British postal authorities to provide for their quick handling through the customs overseas. A yellow label, affixed by the mailer, certifies that the parcel is from a private individual and contains only bona fide, unsolicited gifts of food.

New air-mail routes were opened in 1946-47 and frequencies increased both on a national and international scale. Services were extended to several countries in Europe and Asia, including Germany and Japan. In October, 1946, transatlantic air-mail service between Dorval Airport, Montreal, and Prestwick, Scotland, and London, England, was increased to daily in each direction. A special delivery service for both air mail and surface mail between Canada and the United Kingdom became effective on Apr. 1, 1947.

During 1946-47 improved air-mail schedules were also effected over the main trans-Canada air-mail system, including a fourth direct flight daily (each way) between Toronto and Vancouver. New services linked Canadian centres with Chicago, Washington, Seattle and other United States points, and there was considerable air-mail development in the Maritimes, Central

Canada and the West. Air stage-service was further extended along the eastern shore of Hudson Bay. On July 1, 1947, Sault Ste. Marie and Fort William, Ont., were included on the main trans-Canada air-mail route when the "Great Lakes" short route was inaugurated between Toronto and Winnipeg; Swift Current, Sask., and Medicine Hat, Alta., were also placed on the system.

Miles flown with mail in 1946-47 reached the peak of 20,104,976, but the weight of mail carried by air was 5,626,241 compared with 7,473,152 in 1945-46 and 8,224,230 in 1944-45. The drop in volume is accounted for by the tapering off in the volume of military mail.

<i>Year ended Mar. 31—</i>	<i>Miles Flown No.</i>	<i>Mail Carried lb.</i>
1939.....	3,711,987	1,822,399
1940.....	5,769,257	2,351,172
1941.....	8,330,121	2,842,367
1942.....	10,021,579	3,541,625
1943.....	10,799,670	5,373,021
1944.....	12,799,218	7,220,554
1945.....	13,581,053	8,224,230
1946.....	15,215,816	7,473,152
1947.....	20,104,976	5,626,241

The Post Office commemorated the centenary of the birth of the inventor of the telephone, Dr. Alexander Graham Bell, with a special 4-cent stamp issued on Mar. 3, 1947, the first day cover service being given at Brantford, Ont., his former home. The philatelic demand for this issue broke all records. On July 1, 1947, 80th Anniversary of Confederation, a special "Citizenship" 4-cent stamp was issued. A 4-cent stamp will be issued Jan. 15, 1948, to commemorate the marriage of H.R.H. the Princess Elizabeth, Duchess of Edinburgh, and H.R.H. Prince Philip, Duke of Edinburgh.



# Domestic Trade Prices and Price Control Cost of Living

THE exchange of commodities produced from the mines, forests, rivers and seas, and processed in the factories, together with the services for which people pay, collectively come under the designation of domestic trade. This, together with prices and the cost of living, is a measure of the nation's internal economy.

## ★ *Domestic Trade*

The diverse resources of the various parts of the country have led to a vast exchange of products and the task of providing goods and services where they are required for consumption or use by a population of 12,582,000, very unequally distributed over half a continent, accounts for a greater expenditure of economic effort than that required for the prosecution of Canada's great volume of foreign trade, high though the Dominion ranks among the countries of the world in this field.

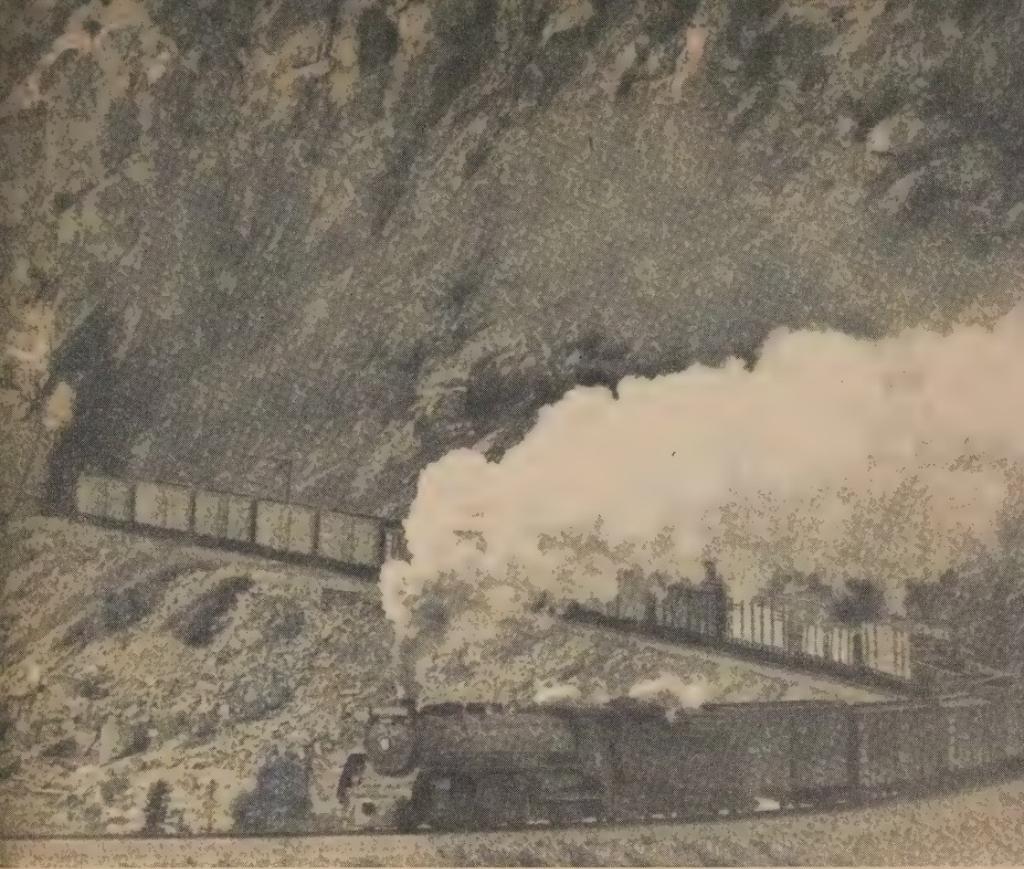
Domestic trade is broad and complicated, including as it does the transportation and distribution of goods within the country through the medium of railways, steamships, warehouses, wholesale and retail stores, and other agencies. It also includes all services such as those performed by doctors, hospitals, theatres, schools, banks, insurance companies, and innumerable others. All such activities, even if not productive of material goods, add substantially to the national income.

Unfortunately, owing to the many ramifications of domestic trade, its statistical measurement presents great difficulties. Nevertheless, some idea of its extent may be gathered from the fact that, in 1946, the national income arising from productive operations was estimated at \$11,417,000,000, while the value of domestic exports was \$2,312,000,000 in that year.

## *Merchandising and Service Establishments*

Every ten years, a Census of Merchandising and Service Establishments is taken, which embraces the fields of wholesale and retail trade as well as that of service and repair establishments catering to the public needs. Comprehensive surveys such as these provide complete analyses of the operations of establishments in each of these fields. The latest complete census was that for 1941.

The magnitude of the task of covering such a wide range of business activity precludes any attempt to repeat the surveys annually. Current



*A freight train leaving Mink Tunnel on the north shore of Lake Superior, Ont.*

information is prepared, therefore, through the medium of partial surveys designed to afford some indication of trends in business and to examine certain significant aspects of the operations when the occasion justifies.

**Wholesale Trade.**—Wholesale trade, for census purposes, has been taken to include all agencies of distribution between the producer on the one hand and the retailer, or industrial or other large user, on the other hand. It does not include manufacturing plants, so that those goods which reach the retailers' shelves or the consumer directly from the producer do not enter the wholesale picture. But it does include manufacturers' sales branches or offices operated at locations apart from plants. In addition to regular wholesalers (including exporters and importers), agents, brokers and commission merchants have been included, as well as assemblers of primary products, such as co-operative marketing associations, grain elevators, and city or country buyers of primary products. The wholesale census also includes the bulk tank stations operated by distributors of petroleum products. It should be noted, however, that many of these types of wholesalers transact business with other wholesalers, with the result that the total volume of business transacted by all types contains duplications to the extent of this inter-trading within the field.

Of all the various types of wholesalers included in the Census, the group designated as "wholesalers proper" constitutes the main distribution

channel for consumer goods to retail merchants. From among these regular wholesale merchants, nine lines of trade, including the principal consumer goods, have been selected to provide a measure of current trends in wholesale trade. The trades on which the composite index of wholesale sales is based are: automotive equipment, drugs, clothing, footwear, dry goods, fruits and vegetables, groceries, hardware, and tobacco and confectionery.

Between 1941 and 1946, the general index of wholesale sales rose 72 p.c., while the index for 1946 was 19 p.c. higher than that for 1945. Trends in all individual trades were up between 1941 and 1946, although the degree of increase in dollar volume varied considerably. Between the years 1941 and 1946, sales of wholesale dealers in fresh fruits and vegetables increased 122 p.c. A high level of purchasing power together with certain price increases contributed somewhat to this rise. With new motor-vehicles withheld from the market, the necessity of maintaining those already in operation was no doubt a factor in raising the dollar volume of sales of automotive parts and equipment to a level 112 p.c. above that for 1941. On the other hand, staple commodities, such as dry goods, clothing and groceries, which were under more rigid price control and were more limited in supply, showed smaller though substantial increases in dollar volume of sales throughout the war years. The result of the lifting of price controls and some improvement in supply was evident in the sales of these trades in 1946 when the increases over the preceding year were greater than in any other year since 1941. Sales in the hardware trade, which showed only a moderate gain of 37 p.c. between 1941 and 1945, increased 31 p.c. between 1945 and 1946 as more hard goods and builders' supplies became available.

Indications are that the 1947 level of dollar sales will be higher again than that for 1946, although the margin of increase is narrowing. Cumulative sales for the first nine months exceeded those for the corresponding period of 1946 by 10 p.c. The greatest gains over 1946 were registered in those trades which had experienced least expansion during the war years, namely, dry goods, hardware, groceries and clothing. Fruit and vegetable wholesalers' sales dropped 6 p.c. below the high peak of 1946, while a gain of 7 p.c. was registered by wholesalers of automotive equipment.

**Retail Trade.**—The final stage in the distribution of consumer goods is effected through a great number of retail stores, ranging in size from small stores with meagre daily takings to large enterprises whose sales are reckoned in millions of dollars. The trend toward large-scale merchandising started early in the present century when larger individual establishments, chiefly of the department-store type and associated in some cases with extensive mail-order business, came into being. This was followed by a rapid expansion in the chain-store type of distribution which was the outstanding development during the 1930's.

Results of the Census of Merchandising for 1941 showed a total of 137,331 retail stores with sales of \$3,440,901,700. These stores provided employment for 297,047 full-time employees in that year, of whom 188,658 were male and 108,389 were female. Salaries and wages paid to these employees amounted to \$289,379,500. In addition, 95,561 part-time employees received \$25,058,000 in wages. In 1941, department stores transacted 11 p.c.

of the total retail trade of the country, including their mail-order business. Chain companies, whose operations extend into many of the 118 kind-of-business classifications used, accounted for 19 p.c. of all retail trade.

The impact of war had affected merchandising to only a slight degree in 1941, although it had increased consumer income to the point where sales volume was rapidly expanding. Control measures and restrictions, which became numerous and extended over many commodities during subsequent years, did not bring about any decline in retail trading. The diversion of certain materials to war production was a deterrent to expansion in a few fields; radio, household appliance and automobile dealers experienced a substantial contraction in their sales for quite some time. Nevertheless, in spite of increased income-tax rates and the withdrawal of large segments of consumer income as war savings in the form of Victory Bonds, the general direction of retail trading moved constantly upward during the entire war period. The main purpose and result of control regulations was to ensure as equitable distribution of the available goods as possible.

By 1945, the volume of retail business had reached \$4,591,885,000 and was one-third higher than at the time of the 1941 census. Chain-store sales in that year were \$877,896,000 and remained at 19 p.c. of the total, although the number of individual outlets has tended to become reduced. The following table shows the relative expansion in sales that took place between 1941 and 1945 for the major groups.

#### *Retail Store Sales, by Kind-of-Business Groups, 1941, 1944 and 1945*

Group	1941 <sup>1</sup>		1944 <sup>2</sup>	1945 <sup>2</sup>
	Stores	Sales	Sales	Sales
		No.	\$	\$
Food.....	48,468	786,247,300	1,017,541,000	1,110,314,000
Country general .....	11,917	214,747,800	321,308,000	354,684,000
General merchandise.....	3,794	525,971,000	654,954,000	722,804,000
Automotive.....	16,867	594,719,500	351,942,000	424,301,000
Apparel.....	12,601	295,211,600	397,458,000	435,894,000
Building materials.....	5,801	174,203,400	247,723,000	281,418,000
Furniture—household—radio.....	3,498	118,356,900	107,056,000	123,520,000
Restaurants.....	8,821	131,181,000	202,463,000	210,465,000
Other retail stores (including second-hand).....	25,564	600,263,200	822,706,000	928,485,000
<b>Totals, All Stores.....</b>	<b>137,331</b>	<b>3,440,901,700</b>	<b>4,123,151,000</b>	<b>4,591,885,000</b>

<sup>1</sup> Census results.

<sup>2</sup> Estimates.

Relaxation of wartime restrictions began early in 1945, even before the termination of hostilities. By the end of 1946 most of them had been removed, but controls affecting distribution were not completely discarded until November, 1947, with the termination of sugar rationing.

The transition stages from a wartime to a peacetime economy did not disturb the prevailing direction of retail trade. Employment has continued at a high level throughout the post-war period, some rise in wage levels has come about, family allowance payments and gratuities have helped to swell the fund of consumer purchasing power. These factors, coupled with the accumulated demand for numerous products which were scarcely obtainable during the War, enabled retail trade to extend its advance through 1946

and at an accelerated rate. The greatest expansion in recent periods has taken place in sales of radio and electrical stores, automobile dealers, hardware and furniture stores.

Official estimates of the total retail trade of Canada in 1946 are not yet available. On the basis of material presently at hand, it would appear that dollar sales were in the vicinity of \$5,475,000,000 for that year, an increase of about 20 p.c. over 1945. In the first nine months of 1947, the rate of increase moderated slightly, results for fourteen trades revealing an average increase of 10 p.c. over 1946. If the current margin of increase is sustained through the remaining three months of the year, volume of sales should approximate \$6,000,000,000 during 1947. Emphasis continues to be concentrated on durables to some extent, although other consumer necessities such as apparel and food continue to share in the expansion of retail business. Only in those trades that specialize in the sale of luxury or semi-luxury goods, such as jewellery, candy and furs, have sale declines become evident in recent months.

**Retail Services.**—In addition to the retail merchandise stores in operation in 1941, there were 49,271 service establishments with total receipts of \$254,677,900 recorded in the results of the Census of Merchandising and Service Establishments. These figures cover a wide range of establishments of various types located generally in the retail marketing sections of urban areas and whose revenue represents receipts from services rendered rather than from the sale of merchandise. Professional services, transportation services, and services related directly to the building trades, masonry, plumbing, etc., are not included. The provision of amusement and personal services of various kinds forms a large proportion of the total. Figures estimated for the years 1942 to 1946 reveal an expansion in motion-picture theatre attendance and receipts. There were 227,538,798 paid admissions in 1946, while box-office receipts amounted to \$59,888,972. Dominion and provincial amusement taxes amounted to an additional \$15,052,994.

**Chain Stores.**—Chain stores captured a slightly larger share of the total trade in 1945 than they obtained in 1944. The proportion of chain store sales to total sales increased from 18.8 p.c. in 1944 to 19.1 p.c. in 1945. There were 426 chain companies operating 6,725 stores in Canada in 1945 with sales of \$877,895,900, whereas 1944 totals showed 435 companies with 6,829 stores and sales of \$774,088,400. Included in these chain figures are all retail organizations operating four or more retail outlets, excluding department stores which are classified as independents regardless of the number of stores they operate.

### *Co-operative Associations*

During recent years Canadian co-operatives have expanded in many directions and the movement has been strengthened by provincial and national federations and international affiliations. The various co-operative wholesales in Canada have joined to form Interprovincial Co-operatives Limited to facilitate interprovincial co-operative trading in products of the various provinces. Five large co-operative wholesales in Canada belong to National Co-operatives Incorporated of the United States, whose main business is in dairy equipment, farm, household and automotive chemical preparations.



*A modern self-service groceteria.*

**Co-operative Business Organizations.**—In 1946 there were more than 1,900 co-operative associations in Canada with total assets amounting to \$163,467,434, of which the depreciated value of plant and equipment was \$46,775,158. The members' equity amounted to \$92,455,174, consisting of paid-up share capital of \$19,580,322 and surplus and reserves of \$72,874,852. This was an increase of \$8,681,023 in members' equity over 1945. The relation of members' equity to total assets increased from 49 p.c. in 1945 to 57 p.c. in 1946, accounted for by a decrease in grain on hand with an offsetting decrease in bank loans. Working capital increased from \$40,725,825 in 1945 to \$45,680,016 in 1946.

The value of farm products marketed during the 1945-46 crop year was \$454,564,927. This was a decrease of \$46,000,000 from the previous year which had been the record year to date. The value of grain and seed marketed co-operatively fell about \$64,000,000 as a result of the small grain crop in 1945.

There was little change in the proportion of farm products marketed co-operatively. It is estimated that about 28 p.c. of the main farm products was again handled by co-operatives at some stage of the marketing process. During 1946, 1,080 associations reported the marketing of farm products and 1,446 associations purchased merchandise and supplies for their members. The value of supplies handled was \$95,603,311, an increase of more than \$14,000,000. This increase in purchasing occurred in all provinces.

In 1946 there were 545 consumers' co-operative stores with 166,030 members and retail sales of \$45,893,742.

**Credit Unions.**—This is a form of co-operative banking which was introduced in to the Province of Quebec in 1900 and spread to the other provinces from 1930 onwards. In 1946 there were 2,422 of these co-operative credit institutions throughout the Dominion with a membership of about 690,000. Total assets were over \$187,000,000 and during 1946 loans were made in excess of \$53,000,000. Quebec leads all provinces in the number of such unions, membership and assets. It is estimated that the credit unions in Canada are about equally urban and rural.

In Quebec these "caisses populaires" are an extremely important factor in the rural economy, since loans are made mostly to farm people for agricultural purposes. In that Province over 900 caisses lent approximately \$30,000,000 to members in 1946.

**Insurance.**—Mutual fire insurance is one of the oldest forms of co-operation in Canada. At the end of 1945 there were over 400 such mutuals with insurance at risk amounting to \$1,554,000,000. Net losses paid in 1945 amounted to over \$3,000,000. The Co-operative Life Insurance Company, recently organized under the Saskatchewan Life Insurance Act, is the first venture into the field of life insurance.

**Miscellaneous.**—At the end of 1945 there were 2,368 co-operative telephone systems in operation across Canada with an investment in excess of \$21,000,000 and 99,851 connected telephones. Other services are now being provided in a co-operative way, including housing, lodging and boarding facilities, transportation and funeral services. Perhaps two of the most important recent developments of this type are the county medical services in Ontario and rural electrification in Quebec. Co-op. Vegetable Oils Ltd., organized several years ago by the sunflower growers at Altona, Manitoba, commenced crushing operations in March, 1946, and during its first season produced over 5,000,000 lb. of sunflower seed oil and meal and more than 1,000,000 lb. of linseed oil and meal.

## ★ Wholesale Prices

The general wholesale price index (1926=100) stood at 72·3 in August, 1939, and at 130·8 in August, 1947. This represents an increase of 81 p.c. for the War and immediate post-war periods. The index is strongly affected by the increase in wholesale prices of Canadian farm products, which rose from the relatively low point of 58·4 in August, 1939, to 120·0 in August, 1947, an increase of 105·5 p.c.

The index includes approximately 500 articles, each of which is priced at several sources. The articles are largely basic commodities, produced by Canadian farms, mines, forests, fisheries and manufacturing industries, although a considerable number of semi-manufactured and finished goods are also included. Weights used correspond to the importance in domestic markets of the various items marketed, whether they are imported, exported or for domestic consumption.

The nine-year increase of 81 p.c. in the Canadian wholesale price index compares with a United Kingdom increase of 97 p.c. and a United States increase of 101 p.c. for the same period.

**Monthly Index Numbers of General Wholesale Prices and Wholesale Prices of Canadian Farm Products, 1946 and 1947**

(1926 = 100)

Year and Month	General Wholesale Prices	Canadian Farm Products	Year and Month	General Wholesale Prices	Canadian Farm Products
<b>1939</b>			November.....	111.6	113.8
August.....	72.3	58.4	December.....	112.0	113.9
<b>1946</b>				<b>1947<sup>1</sup></b>	
January.....	104.6	109.6	January.....	114.2	114.4
February.....	105.3	110.3	February.....	118.1	115.5
March.....	105.6	110.3	March.....	120.4	116.4
April.....	108.4	110.7	April.....	122.9	116.9
May.....	109.0	111.4	May.....	125.3	118.5
June.....	109.3	112.7	June.....	127.8	119.2
July.....	109.7	113.8	July.....	129.1	120.1
August.....	109.3	111.5	August.....	130.8	120.0
September.....	109.2	110.9	September.....	133.8	120.4
October.....	111.0	113.3	October.....	139.3	122.9

<sup>1</sup> Subject to revision.

### ★ *The Period of Price Decontrol\**

Under the general price ceiling established in December, 1941, and administered by the Wartime Prices and Trade Board, the prices of most goods, important services and rentals were frozen at the levels prevailing in the basic period Sept. 15-Oct. 11, 1941. While a few commodities were at first exempt from control, it was eventually found necessary to establish maximum prices for most of them. As the stabilization program developed, standardized specific prices replaced individual basic-period price ceilings more and more and, as the number of price adjustments increased at the manufacturing level, a standard method of controlling price increases at distributive levels was evolved. For a wide range of commodities maximum wholesale and retail percentage markups over costs were established.

As far as practicable, the same price-quality relationships, and the same proportionate volume of production in each price range as in the basic period were maintained and as far as possible scarce goods were fairly distributed among the various regions and the dealers within those regions. Rationing, allocation of materials, direction of production, and other controls were also necessary accompaniments to price control.

Higher costs, the inevitable result of the War, were to some extent offset by higher volume of sales and various cost-reducing measures designed to keep down the prices paid by consumers, and were partly absorbed by producers, importers and distributors. In some cases subsidies were paid or price increases were authorized.

It was recognized that price and related controls were temporary measures that had to be relaxed and removed as promptly as the emergency conditions which brought them into being were alleviated and corrected. October, 1946, to October, 1947, comprised by far the most important period in

\* The operations of the Wartime Prices and Trade Board and problems of the war years have been discussed in previous editions of this Handbook.

decontrol and readjustment.\* By the beginning of that period substantial progress had already been made in the withdrawal of controls and the readjustment of the economy to post-war conditions.

The pace of this development was considerably accelerated in the sixth year of price control. Canadian production reached very high levels and many shortages were overcome. All circumstances were not favourable, however, and it was recognized that in some cases decontrol would be followed by price increases. Nevertheless, it was felt that there was little justification for indefinitely prolonging controls that isolated the Canadian economy from conditions abroad, particularly in the United States where the long expected decline in prices had not materialized.

The first decontrol step during this period was taken on Jan. 13, 1947. By that time disruptions arising from industrial disputes in both the United States and Canada in 1946 and from the cessation of United States price control in November, 1946, had subsided. Further major steps followed in April, June and July, and finally on Sept. 15, 1947, price ceilings were lifted on the majority of the remaining goods and services still under control.

The action of Sept. 15 reduced the list of articles still under the price ceiling to a very small number of key or very scarce items. The principal commodities included sugar, molasses, dried raisins, currants and prunes, meat and meat products except poultry,† wheat, feed grains (whether whole or ground),† the principal oil-bearing materials (flaxseed, sunflower seed and rapeseed), the more important oils and fats except corn oil and olive oil, soaps, primary iron and steel products, tin and alloys containing more than 95 p.c. tin. Among services, price control was retained on the supplying of meals with sleeping accommodation for a combined charge (except when supplied by employers to employees), on manufacturing processes performed on a custom or commission basis and entering into the production of goods still under price control and on custom or commission packing charges for goods still under control.

The principle underlying the removal of subsidies was that it was clearly undesirable to maintain subsidies that were offsetting cost increases, which showed little indication of declining in the immediate future. At the same time the process of reduction and removal had to be a gradual one. The paring down of subsidy commitments went on continuously during the year and after Sept. 15 practically the only remaining items eligible for subsidy were oils and fats for the manufacture of soap and shortening.

Among those eliminated were the subsidies on butterfat for the manufacture of creamery butter and on milk entering into the production of cheddar cheese. These were withdrawn on Apr. 30, 1947, and superseded by price increases which in the case of butter also included an allowance for other increased costs of production. Another important food subsidy cancelled during this period was the drawback that, since 1942, had been paid to maintain the price of wheat to millers and other processors at the basic-period level of 77 $\frac{3}{8}$  cents per bu., basis No. 1 Northern in store at Fort William. There was clearly no prospect of an early return of wheat prices

\* Authority to continue needed emergency controls until approximately Mar. 31, 1948, was embodied in the Continuation of Transitional Measures Act assented to May, 1947.

† On Oct. 22, 1947, ceiling prices were removed on meat and meat products except lard and tallow and on barley, oats and screenings.

to such a low level and it was considered no longer justifiable to continue to hold flour prices by subsidizing wheat prices to a depression level. This subsidy was therefore cancelled on Sept. 15, and at the same time ceiling prices were removed on flour and bread.

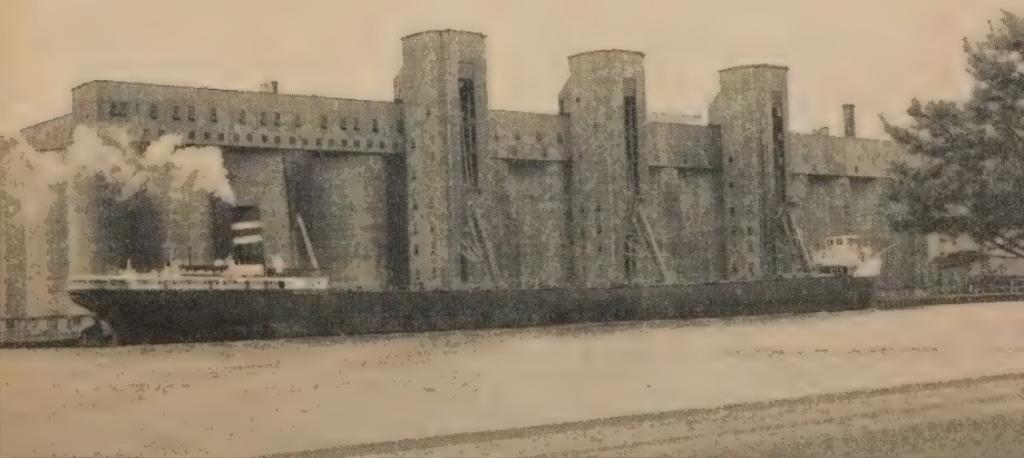
The important textile subsidies were also removed. In January, 1947, all remaining wool subsidies were cancelled, by February virtually all rayon subsidies had been withdrawn and in the same month the base price of raw cotton for subsidy purposes was again raised. Generally, the reduction or removal of these subsidies necessitated price adjustments on yarns, fabrics and, eventually, finished goods. In the case of cotton goods, maximum prices of imported fabrics were raised in line with the new domestic ceilings and import subsidies were correspondingly reduced. Various cotton goods were declared ineligible for import subsidies on Apr. 30, and again on June 2 at which time the subsidy base price of raw cotton was again raised. Finally, on Sept. 15, all remaining textile items (except used bags) were released from the price ceiling and cotton subsidies were cancelled. Inventories of subsidized cotton goods were such that prices were not expected to rise above the old ceiling levels for some considerable time.

A great many other commodities were affected by the removal of subsidies or by reduction in trading losses in cases where the goods were bulk-purchased. These included molasses, rice, coffee, cocoa and cocoa products, corn products, bindertwine, hides and skins, coal, petroleum, tin and antimony.

A substantial number of important price adjustments occurred in the course of the year. Many of these were the result of the removal of subsidies and trading losses as described above. Increased costs other than those arising from subsidy changes were reflected in other adjustments; in many cases higher labour costs were a factor. In the case of some products normally exported in large volume, such as copper, lead and zinc and pulp and paper products, consideration was given to the wide spreads between domestic and export prices as well as to the financial position of the producers concerned. There were also adjustments designed to maintain or expand the production of needed commodities. The items on which price increases were

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*A Great Lakes freighter, carrying a load of grain from Fort William, discharges its cargo at Port McNicoll, Ont., for rail shipment to the seaboard or to eastern flour mills.*



authorized included beef, pork, lard and shortening, tea and coffee, sugar, restaurant meals, wheat, oats and barley, leather and footwear, hardwood flooring, softwood lumber, coal, refrigerators, stoves and furnaces, motor-vehicles, nails, steel and steel scrap.

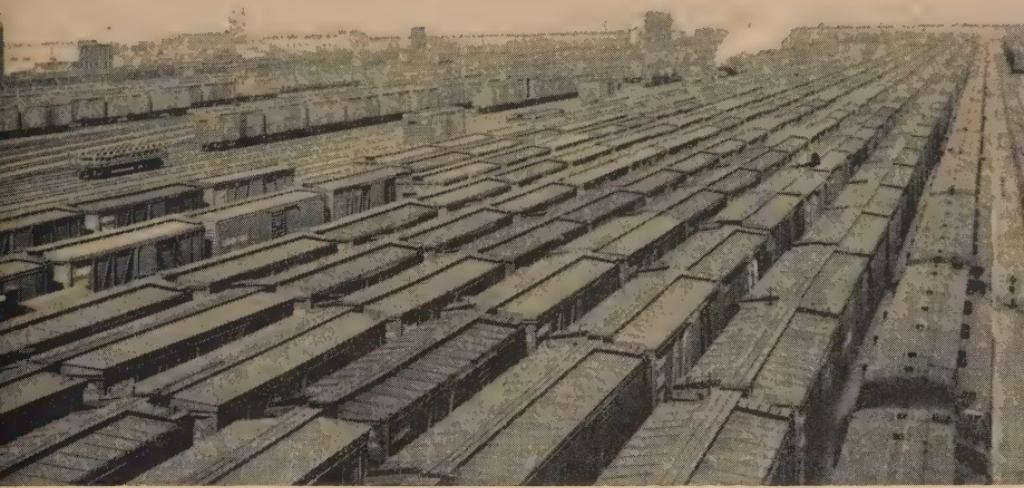
The remaining supply and distribution controls associated with the stabilization program were gradually withdrawn and after Sept. 15, 1947, only a few important ones were left. Rent and eviction controls continued in effect and sugar rationing was maintained. Export controls were retained to prevent an undue drain of scarce goods to external markets and thus avoid the forcing up of domestic prices of these goods to high world levels.

The Board's policy of equitable distribution governing goods in short supply was further modified in January, 1947. Moreover, the coverage of this control was continually diminishing, since goods released from price control automatically ceased to be subject to it, as also did those goods which were no longer in short supply. Regulations respecting the extension of credit to consumers were also withdrawn in January, 1947. In the textile field, the production directives designed to secure the largest practicable output of essential garments, were terminated at the end of 1946 with the exception of a few which were continued until Mar. 31, 1947. The program under which each discharged service man received priority in the purchase of a civilian suit was wound up late in 1946.

Probably one of the most important changes was the removal of meat rationing on Mar. 27, 1947. The rationing of meat imposed for the second time in September, 1945, involved a whole mechanism of control from the slaughtering of the live animals down to the distribution of meat to consumers, and was an expensive and difficult operation from both the standpoint of Government administration and the task imposed upon commercial slaughterers, meat distributors and consumers. It was particularly important, therefore, not to prolong it any longer than was absolutely necessary, and in March it was decided to discontinue the rationing of meat at the consumer level and substitute a modified type of control to maintain meat exports to the United Kingdom. The regulations requiring Tuesdays and Fridays to be observed as meatless days in public eating places were retained for a time. In June, however, they were relaxed to permit the serving of weiners at exhibitions, fairs, picnics and similar gatherings, and they were completely withdrawn on Aug. 15, 1947.

The termination of butter rationing was announced on June 9, 1947. Butter production was then at its seasonal peak and stocks were improving. In these favourable circumstances it was decided to release butter from price control and discontinue rationing. A number of other controls affecting dairy products had been withdrawn in April—those prohibiting the sale of whipping cream, limiting the monthly sales of cream distributors and controlling the disposition of cheddar cheese.

While sugar rationing remained in effect, the ration was considerably liberalized both by actual increases and by the derationing of preserves. Canned fruits were removed from the list of rationed preserves in December, 1946, followed shortly by maple products, corn and cane syrups, and in June, 1947, by jams, jellies, marmalade and honey. Sugar supplies began to improve rapidly in the spring and early summer as an exceptionally good Cuban



*Freight yards at Winnipeg, Man., the "gateway to the West".*

crop was harvested. The consumer ration and the allocations to industrial and other quota users were substantially increased. In addition, three pounds of sugar was added to the individual canning allowance, bringing it to 13 pounds per person for the 1947 season. Extra sugar was also allocated to commercial fruit canners.

Important changes in rental and eviction controls occurred during 1947. While the scarcity of accommodation remained acute it was necessary to make some progress toward decontrol and to alleviate where practicable certain cases of particular hardship resulting from the operation of controls. For the first time since rent control was imposed, general increases were authorized in maximum rentals of both housing accommodation and commercial accommodation.

In the field of commercial accommodation, controls were revised in March and June and after these changes freedom of bargaining prevailed with respect to a substantial proportion of commercial space. Furthermore, it was announced by the Minister of Finance in June, 1947, that the Government did not propose to maintain rent and eviction control over commercial accommodation beyond the expiration of the Continuation of Transitional Measures Act, Mar. 31, 1948. A measure of financial relief was extended to landlords of commercial accommodation in March, 1947, when provision was made for an increase of 25 p.c. in maximum rentals provided a two-year extension of the lease was agreed upon by the landlord and the tenant.

Controls respecting housing accommodation also underwent substantial change. In April, 1947, provision was made for a 10 p.c. increase in maximum rentals of housing accommodation provided the landlord was willing to give the tenant a two-year extension of the lease. An additional 10 p.c. was available upon application for sub-letting by the tenant, and subject to certain conditions. The basis for the adjustment of anomalously low rentals

was also broadened and liberalized in April, 1947. The rental increase allowed at this time was not applicable to housing accommodation newly built or reconverted since Jan. 1, 1944, since the basis of maximum rentals on new buildings took into account the increase in construction costs.

On some types of housing accommodation controls were completely removed. Thus, in March, rentals of rooms in holiday resort boarding houses and hotels were decontrolled, and in the following month rent control was terminated on all hotel accommodation. Then, in June, both rental and eviction controls were lifted on all new houses, apartments, duplexes and other self-contained buildings completed on or after Jan. 1, 1947. This was considered a desirable step to alleviate the shortage of accommodation by encouraging the construction of new housing for rental.

Eviction controls affecting housing accommodation were modified in some respects. Thus, in March, 1947, steps were taken to provide relief to those landlords of housing accommodation who had incurred hardship as a result of the freezing of leases on such accommodation in July, 1945. Landlords of housing accommodation purchased between Nov. 1, 1944, and July 25, 1945, were allowed to apply for permission to recover such accommodation. The tenant might oppose the application and the Court of Rentals Appeal, in making a decision, would give consideration to the relative needs of the landlord and the tenant. Similar but more extensive action was taken in August when provision was made for the relief of certain landlords of tenanted dwellings who with their families were suffering grievous hardship as a result of being restrained by eviction controls from occupying their own homes. The term "grievous hardship" was given a narrow interpretation and, in cases where the landlord's application was granted, a special order was issued by the Board requiring the landlord to refrain from selling or renting the accommodation for a period of one year.

### ★ *Cost of Living*

By December, 1947, the Dominion Bureau of Statistics' cost-of-living index had moved up to 146·0. This represented a price increase of 46·0 p.c. over the average cost in the five pre-war years (1935-39) of a typical urban wage-earner family budget of that time. If the price increase of this budget were reckoned on the August 1939 base, when the index stood at 100·8, it would amount to 44·8 p.c.

The cost-of-living index budget does not represent a minimum standard of living; it is a budget based upon actual living expenditure records of typical wage-earner families. The index measures price changes only. Increases in quantities consumed are not taken into account. Items that have gone up a great deal in price, as have many articles of food and clothing, are averaged with articles that have not gone up so much, such as rent and electric light and carfare. But the correct amount of importance is given to each of these items. The weights to be attached to them were determined by a very careful study of urban wage-earner family expenditures, undertaken in 1938.

Quality deterioration is carefully watched by a full-time staff of field representatives who report their findings regularly. If an article now lasts only half as long but costs just as much as heretofore, this is counted as a

doubling of price. Articles in short supply, especially those in the lower price ranges which have disappeared entirely, are similarly accounted for. For example, if a set of dishes which formerly cost \$6·95 is now unobtainable, the field representatives obtain the next cheapest price, say \$8·95, and this is counted as a price increase and given its due representation in the index.

One hundred and fifty of the most important articles of consumption are priced each month. Each one is priced in several cities (from 10 to more than 60 cities in the case of foods), and in several stores in each city so that more than 60,000 individual quotations enter into the calculations. Although a considerable proportion of these quotations is collected directly by field representatives a careful check of all price records is made after reports are received in the main office and before the tabulation stage of index calculation is reached.

### *Index Numbers of Living Costs, 1939-46, and by Months, 1947*

(Av. 1935-39=100)

Year and Month	Food	Rent	Fuel and Light	Clothing	Home Furnishings	Sundries	Total
1939.....	100·6	103·8	101·2	100·7	101·4	101·4	101·5
1940.....	105·6	106·3	107·1	109·2	107·2	102·3	105·6
1941.....	116·1	109·4	110·3	116·1	113·8	105·1	111·7
1942.....	127·2	111·3	112·8	120·0	117·9	107·1	117·0
1943.....	130·7	111·5	112·9	120·5	118·0	108·0	118·4
1944.....	131·3	111·9	110·6	121·5	118·4	108·9	118·9
1945.....	133·0	112·1	107·0	122·1	119·0	109·4	119·5
1946.....	140·4	112·7	107·4	126·3	124·5	112·6	123·6
1947—							
January.....	145·5	113·4	109·0	131·5	129·8	114·7	127·0
February.....	147·0	113·4	109·1	131·9	130·9	115·5	127·8
March.....	148·7	113·4	109·1	133·1	133·6	116·0	128·9
April.....	151·6	113·4	109·1	136·9	137·2	116·3	130·6
May.....	154·9	115·4	116·2	140·0	138·6	116·8	133·1
June.....	157·7	117·8	116·7	142·4	139·8	117·1	134·9
July.....	159·8	117·8	117·3	143·2	142·5	117·2	135·9
August.....	160·6	117·8	118·6	145·5	143·7	117·2	136·6
September.....	165·3	117·8	121·1	152·0	147·4	117·5	139·4
October.....	171·3	119·9	121·9	154·2	149·9	117·6	142·2
November.....	173·6	119·9	122·6	157·0	151·4	118·2	143·6
December.....	178·7	119·9	120·3	159·3	154·9	119·8	146·0

The "Princess Norah" unloads supplies at Banfield cable station. Many British Columbia coastal communities depend on ships to connect them with Vancouver and other large markets.





# Foreign Trade International Payments

CANADA'S wartime position as the world's third largest foreign trader was maintained during 1946 and 1947, with the total value of her 1946 trade in excess of \$4,200,000,000 and with 1947 imports and exports approximating \$5,000,000,000 in total value.

The growth and development of Canadian foreign trade to such a high level is a result of the combination of unique geographic and economic conditions. Canada is richly endowed with resources of a specialized nature. The development of these resources has required enormous capital investment which is profitable only when the resources are exploited on the largest possible scale and the initial costs can be offset by mass production. In normal times, Canada can sell wheat in competition with other parts of the world not only because of the industry and ability of the farmer but also because of the capital invested in railways, shipping and farm machinery. These facilities could not be economically employed without the intensive development of the wheat industry and without continued high production. The pulp and paper and base-metal industries have required similar heavy capital investment in plant, transportation facilities, and hydro-electric developments. A population of twelve and a half million people could not begin to absorb the total production of these specialized industries, and it is only by exporting that efficient low-cost production of these basic commodities can be maintained.

At the same time, Canada is not self-sufficient in many commodities required by modern industry or in commodities that have come to be regarded as essential to a high standard of living. The table on p. 190, listing principal imports, indicates the wide variety of articles that are produced, if at all, in insufficient quantities to meet domestic demand. Coal and machinery, automobiles and parts, cotton and wool, oil and gasoline, sugar and fresh fruits, tea and coffee, all are used in quantity by Canadian industry or needed to fill the wants of the Canadian consumer. These commodities are paid for by the sale of Canadian goods abroad.

The maintenance of a large volume of trade is therefore of two-fold importance to Canada. It is only by exporting on a large scale that she can obtain the economies of large-scale production and maintain employment in the export industries, and her needs for the many goods that cannot be produced in Canada can be satisfied only if sufficient Canadian products are sold on the international market to pay for the imports. Government and private business have, since the War, been co-operating to adjust the flow of Canadian goods abroad and foreign imports to Canada in order that Canada's international balance of payments may be kept within bounds.

# Imports, Exports and Total Trade of Canada, 1926-47

(Millions of Dollars)

Year	Imports	Exports			Total Trade	Excess: Imports (-) Exports (+)
		Domestic Produce	Foreign Produce	Total		
1926	1,008.3	1,261.2	15.4	1,276.6	2,284.9	+ 268.3
1927	1,087.1	1,210.6	20.4	1,231.0	2,318.1	+ 143.9
1928	1,222.3	1,339.4	24.4	1,363.8	2,586.1	+ 141.5
1929	1,299.0	1,152.4	25.9	1,178.3	2,477.3	- 120.7
1930	1,008.5	863.7	19.4	883.1	1,891.6	- 125.4
1931	628.1	587.7	11.9	599.6	1,227.7	- 28.5
1932	452.6	489.9	8.0	497.9	950.5	+ 45.3
1933	401.2	529.5	6.0	535.5	936.7	+ 134.3
1934	513.5	649.3	7.0	656.3	1,169.8	+ 142.8
1935	550.3	725.0	12.9	737.9	1,288.2	+ 187.6
1936	635.2	937.8	12.7	950.5	1,585.7	+ 315.3
1937	808.9	997.4	14.7	1,012.1	1,821.0	+ 203.2
1938	677.5	837.6	11.1	848.7	1,526.2	+ 171.2
1939	751.1	924.9	11.0	935.9	1,687.0	+ 184.8
1940	1,082.0	1,178.9	14.3	1,193.2	2,275.2	+ 111.2
1941	1,448.8	1,621.0	19.5	1,640.5	3,089.3	+ 191.7
1942	1,644.2	2,363.8	21.7	2,385.5	4,029.7	+ 741.3
1943	1,735.1	2,971.5	29.8	3,001.3	4,736.4	+ 1,266.2
1944	1,758.9	3,440.0	43.1	3,483.1	5,242.0	+ 1,724.2
1945	1,585.8	3,218.3	49.1	3,267.4	4,853.2	+ 1,681.6
1946	1,927.3	2,312.2	27.0	2,339.2	4,266.4	+ 411.9
1947 (7 months) ...	1,483.5	1,565.0	19.8	1,584.8	3,068.3	+ 101.3

## Exports

Details of the composition and destination of Canada's exports over various periods of time will be found in tables on succeeding pages. The decline of exports in 1946 from the previous year was due to the abrupt cessation in the shipments of war materials, which was only partially compensated for by the reopening and expansion of peacetime trading channels. On this account, it is more reasonable to compare 1946 and 1947 exports with the aggregates in the years before the War than with the inflated wartime figures. Exports in 1946 were valued at two and one-half times the 1939 total; 1947 exports have been running at about three times the 1939 level.

Although Canada's export trade since the end of the War has been running at a much higher level than anything experienced prior to 1939, the composition of the goods shipped abroad has remained relatively stable. Historically, primary products have always dominated Canadian export trade and, to this day, the greater part of goods shipped abroad from Canada fall into that general category. From the list of principal exports at p. 186 it will be seen that ten of the first eleven principal products exported in 1946 were products of Canadian farms, forests, fisheries or mining and metallurgical industry. These same eleven commodities, in a slightly different order, were likewise the first eleven items in the 1939 list of principal exports, and also leading exports for the first seven months of 1947. The continuing importance of this small group of primary products is emphasized by the fact that these eleven items made up 57 p.c. of total exports in 1939, 56 p.c. in 1946 and 60 p.c. in the first seven months of 1947.

Despite this dominance of the primary commodities listed in Canada's export trade, the products of Canadian manufacturing industries during and since the War have been sold abroad on an unprecedented scale. Exports

Grain for the  
United Kingdom  
being loaded at  
Churchill, Man.



of farm machinery in the first seven months of 1947 alone were nearly four times as great as in the calendar year 1939. Shipments of electrical apparatus and machinery in 1946 and 1947 have been running about six times the level of 1939. Locomotives and railway cars, a negligible item in export trade before the War, were exported to the value of \$50,000,000 in 1946.

The geographical alignment of Canadian export trade is similar to the pre-war pattern, with the United States and the United Kingdom the principal buyers of Canadian goods. Their relative importance to the total, however, has declined somewhat since 1939, falling from 77 p.c. in that year to 64 p.c. in 1946 and to 63 p.c. in the first seven months of 1947. The shift has taken place primarily in the direction of increased exports to Europe, due in part to the credits granted by the Canadian Government, and in substantial increases in exports to Latin America.

Canadian exports to the United States in 1946 aggregated \$888,000,000. Of this total, forest products made up over one-half; in fact, exports of one item, newsprint paper, to the United States were valued at \$225,000,000. Exports to the United Kingdom in the same period exceeded \$597,000,000, two-thirds of which were food products, with lumber, newsprint and base metals also shipped on a large scale.

European countries formed the group third in importance in 1946, and comprised principally countries whose purchases from Canada were financed largely by Canadian loans or credits or by UNRRA. Relief and rehabilitation needs dictated the type of commodities shipped to these countries. It is therefore not surprising to find food leading the list of exports, although industrial machinery, railway equipment, clothing and base metals were also in great demand.

Fourth in importance were the shipments to countries of the British Empire, other than the United Kingdom, the total value of which exceeded \$300,000,000. South Africa, India, British West Indies, Newfoundland, Australia and New Zealand are the principal Empire buyers of Canadian goods.

Exports to these countries were well diversified and represented a broad cross-section of Canadian export trade. The natural Canadian exports of food, newsprint and lumber predominated, but manufactured goods were shipped in quantity, with railway locomotives and cars, automobiles and textile products constituting important items. Exports to Latin America, although the last of the groups in dollar value, were an important source of hard currency to Canada. The total value of exports exceeded \$90,000,000, with Brazil, Argentina, Venezuela and Mexico ranking in that order. Newsprint, wheat, flour, trucks and rubber products figured prominently in the exports to this area.

The same general geographic pattern of trade was maintained in the first seven months of 1947, although some minor changes should be noted. The proportion of goods shipped to the United States dropped from 38·4 p.c. in 1946 to 36·0 p.c. in the first seven months of 1947; the corresponding United Kingdom proportions showed an increase from 25·8 p.c. to 27·0 p.c. Shipments to Europe fell off slightly, as the loans and credits were used up and UNRRA exports ceased, to be replaced in part only by the recovery of normal commercial channels of trade. Exports to Empire countries other than the United Kingdom and to Latin America increased slightly in proportion to the total, with the greatest relative increases shown in shipments to the Union of South Africa, Australia, British West Indies, New Zealand and Argentina.

The following table shows the percentage changes in exports, in regard to degree of manufacture, from 1926 to 1946. The percentage of partly and fully manufactured exports has increased greatly in this period.

### *Exports, by Stage of Production, 1926-46*

(Values in Millions of Dollars)

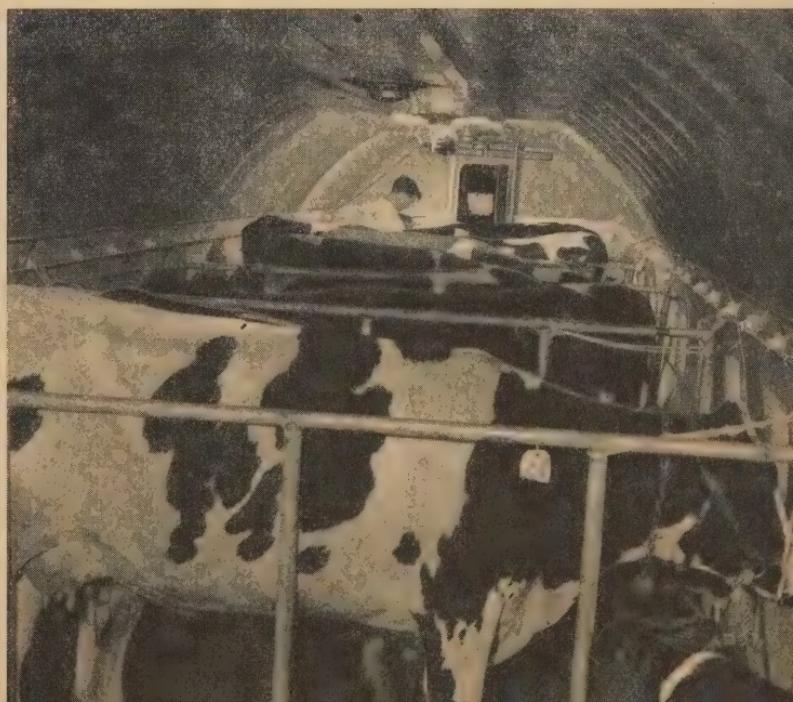
Year <sup>1</sup>	Raw Materials		Partly Manufactured		Fully or Chiefly Manufactured		Total Value
	Value	P.C. of Total Exports	Value	P.C. of Total Exports	Value	P.C. of Total Exports	
1926.....	594	46·1	189	14·7	506	39·2	1,289
1927.....	572	45·9	183	14·7	490	39·4	1,245
1928.....	571	46·9	189	15·5	459	37·6	1,219
1929.....	649	48·0	195	14·5	507	37·5	1,351
1930.....	395	36·4	213	19·6	478	44·0	1,086
1931.....	295	37·8	134	17·2	352	45·0	782
1932.....	213	37·8	87	15·4	264	46·8	563
1933.....	201	42·7	67	14·2	203	43·1	470
1934.....	209	36·2	124	21·5	244	42·3	577
1935.....	234	35·7	137	20·8	285	43·5	656
1936.....	259	34·1	178	23·3	324	42·6	761
1937.....	374	38·2	220	22·5	384	39·3	978
1938.....	277	28·4	269	27·5	430	44·1	977
1939.....	231	27·8	221	26·6	379	45·6	831
1939 <sup>1</sup> ....	274	29·6	247	26·7	404	43·7	925
1940.....	261	22·1	337	28·6	581	49·3	1,179
1941.....	322	19·9	427	26·3	872	53·8	1,621
1942.....	300	12·7	488	20·6	1,577	66·7	2,364
1943.....	519	17·5	498	16·7	1,955	65·8	2,971
1944.....	764	22·2	488	14·2	2,188	63·6	3,440
1945.....	858	26·7	536	16·6	1,824	56·7	3,218
1946.....	603	26·1	512	22·1	1,197	51·8	2,312

<sup>1</sup> Figures for 1926 to 1939 are for the years ended Mar. 31; those for 1939 to 1946 are for calendar years.

## Exports, by Leading Countries, 1939 and 1945-47

NOTE.—Countries arranged in order of importance in 1946.  
(Thousands of Dollars)

Country	1939	1945	1946	1947 (Seven Months)
United States.....	380,392	1,196,977	887,941	564,113
United Kingdom.....	328,099	963,238	597,506	422,083
France.....	6,973	76,917	74,380	41,331
British South Africa.....	17,965	31,593	68,633	45,343
Belgium.....	7,261	34,618	63,626	28,913
British India.....	5,166	307,461	49,046	21,815
China.....	2,636	6,573	42,915	22,206
Newfoundland.....	8,506	40,515	38,229	26,846
Australia.....	32,029	32,226	38,194	35,726
Netherlands.....	7,357	39,970	33,883	37,221
Brazil.....	4,407	16,748	24,602	13,538
Poland.....	1,280	9,249	22,501	11,243
Italy.....	2,231	89,470	20,387	22,245
Norway.....	10,904	7,842	19,267	13,829
Trinidad.....	4,211	16,433	19,140	17,337
Russia.....	275	58,820	17,705	4,360
New Zealand.....	11,954	19,102	16,110	16,328
Jamaica.....	4,313	14,404	15,500	10,514
Egypt.....	369	36,417	15,086	7,622
Argentina.....	4,117	6,003	14,039	19,211
Yugoslavia.....	20	11,711	12,030	4,532
Venezuela.....	1,702	4,053	11,086	8,294
Mexico.....	3,004	8,165	10,536	6,675
Czechoslovakia.....	181	6,717	9,871	8,415
Greece.....	271	25,563	9,739	3,617
Sweden.....	4,284	4,169	9,133	10,964
French Africa.....	105	16,908	8,945	3,252
Colombia.....	1,781	5,011	8,930	6,410
Philippine Islands.....	1,819	2,153	8,901	7,931
Switzerland.....	1,850	10,922	8,636	7,069
Other British West Indies.....	1,608	6,865	8,341	6,968
Ire.....	3,597	14,278	7,956	10,154
British Guiana.....	1,586	6,418	7,109	6,408
Germany.....	7,869	2,725	6,867	5,417
Netherlands East Indies.....	1,057	856	6,833	3,655
Barbados.....	1,604	4,750	6,205	5,740
Cuba.....	1,497	4,535	5,270	3,836
Malta.....	382	4,740	4,671	2,928
Hong Kong.....	1,463	99	4,362	3,136



Pedigreed cattle travel from Canada to Argentina by aircraft.

*Exports, by leading Countries, 1939 and 1945-47—concluded*

(Thousands of Dollars)

Country	1939	1945	1946	1947 (Seven Months)
Bermuda.....	1,369	2,511	3,805	3,148
Austria.....	1	2	3,679	1,723
Chile.....	957	2,562	3,565	2,620
Palestine.....	230	2,866	3,562	3,773
<b>Totals, Above 43 Countries.....</b>	<b>878,681</b>	<b>3,153,153</b>	<b>2,248,722</b>	<b>1,508,489</b>
<b>Grand Totals, Domestic Exports.....</b>	<b>924,926</b>	<b>3,218,331</b>	<b>2,312,215</b>	<b>1,565,033</b>
British Countries.....	430,806	1,486,848	904,701	656,464
Foreign Countries.....	494,120	1,731,483	1,407,514	908,569

<sup>1</sup> Included with Germany.

<sup>2</sup> Less than \$500.

*Principal Exports, 1939 and 1945-47*

NOTE.—Commodities arranged according to value in 1946.  
(Thousands of Dollars)

Commodity	1939	1945	1946	1947 (Seven Months)
Newsprint paper.....	115,686	179,451	265,865	192,214
Wheat.....	109,051	475,787	250,306	161,764
Meats.....	37,445	166,974	128,936	66,126
Wheat flour.....	16,378	97,855	126,733	121,389
Planks and boards.....	48,829	98,935	125,391	106,867
Wood-pulp.....	31,001	106,055	114,021	97,969
Fish.....	27,742	80,224	86,486	44,125
Automobiles and trucks.....	22,551	206,795	57,194	47,871
Aluminum.....	25,684	133,567	56,030	36,468
Nickel.....	57,934	54,778	55,205	34,830
Copper.....	40,232	40,860	37,005	30,058
Vehicles, other than automobiles and trucks.....	407	51,242	33,773	6,506
Fertilizers, chemical.....	9,179	30,428	32,108	20,333
Raw furs.....	14,130	28,521	30,928	17,314
Gifts and donations.....	Nil	39,421	30,163	6,908
Whiskey.....	7,914	22,977	29,650	13,279
Engines and boilers.....	259	22,654	28,764	14,561
Pulpwood.....	11,901	23,882	28,731	14,818
Farm implements and machinery.....	6,975	20,196	28,662	25,006
Zinc.....	9,922	20,373	27,769	17,847
Eggs.....	311	44,120	26,772	18,607
Asbestos.....	14,365	22,184	24,481	18,201
Oats.....	4,142	47,660	23,108	10,078
Cheese.....	12,249	27,909	21,948	1,522
Automobile parts.....	2,992	93,852	21,110	11,766
Electrical apparatus.....	3,229	60,957	20,939	11,818
Wool and manufactures.....	1,523	19,559	18,945	4,785
Skins and vessels.....	486	15,591	18,822	6,503
Cattle.....	15,353	12,257	18,015	7,586
Lead.....	9,850	9,177	16,846	17,187
Machinery, except farm.....	10,873	19,869	15,535	22,102
Platinum concentrates.....	6,137	13,298	15,409	7,931 <sup>a</sup>
Ferro-alloys, pigs, ingots, iron.....	5,168	19,431	12,813	15,514
Abrasives.....	4,568	12,153	12,182	8,089
Veneers and plywoods.....	1,609	12,365	12,026	10,926
Shingles, wood.....	8,225	8,001	11,211	11,380
Milk, processed.....	3,295	12,985	10,677	6,014
Cotton and manufactures.....	3,536	10,141	10,551	6,013
Settlers' effects.....	2,382	5,366	9,712	5,797
Barley.....	7,882	24,101	9,688	991
Leather, manufactured.....	1,248	3,748	9,282	4,707
Apples, fresh.....	5,853	3,457	9,282	3,483



Canadian-built trolley coaches on their way to Bogota, Colombia.

### Imports

On pp. 189-190 will be found tables showing Canada's imports in recent years by principal commodities and by countries. Totals for 1946 and for the first seven months of 1947 indicate a much higher level of imports than existed prior to the War. The 1946 figure of \$1,927,000,000, and the aggregate of \$1,484,000,000 for the first seven months of 1947, may be contrasted with average annual imports of \$685,000,000 in the 1935-39 period.

The volume of imports into Canada is closely related to the level of national income and domestic prosperity. In 1946 and 1947, with national income at a level close to the peak of the war years, and with the wartime restraints on spending largely eliminated, consumer spending reached an all-time high. This increased demand for goods was reflected in the import figures, for not only were consumer goods of foreign manufacture in great demand but the pressure on Canadian manufactures in turn resulted in larger imports to meet their requirements. The rapid increase in prices that occurred also had a considerable influence on the totals, and in making comparisons with previous years, due allowance should be made for this factor of price inflation.

The United States continued to be the chief supplier of Canadian imports and in 1946 73 p.c. of Canada's total purchases abroad came from that country. In 1947, despite the increased availability of goods from other countries, the proportion of United States goods in the import total increased to approximately 78 p.c. The list of imports from the United States covers a very wide range of products; for most of the items in the table of principal imports on p. 190 the United States is the main, and in some instances the only, source of supply.



British Columbia apples arriving in Singapore.

As will be evident from the table, commodity imports may be divided into four principal groups: (1) fuels for industry, heating, power and transportation; (2) semi-manufactured goods for further processing; (3) capital goods for agriculture and industry; (4) goods ready for final consumption, mainly foods and manufactured consumer goods. The largest increases have occurred in imports of cotton fabrics, fresh fruits, coal, farm implements and machinery, industrial machinery and raw cotton, although there are few commodities in the 1946 and 1947 list that are not much higher in value than in 1939.

Imports from the United Kingdom in 1946 were valued at \$141,000,000 (excluding Canadian military equipment returned from the United Kingdom). This represented an increase in dollar value of approximately 16 p.c. over 1945 and 14 p.c. over the 1935-39 average. Imports from the balance of the Empire amounted to \$139,000,000, also an increase of 6 p.c. over the previous year. The principal countries, with the chief items of imports from each, are listed below:—

Country	Value \$'000,000	Item
India.....	27.9	Jute fabrics, tea, rugs.
Australia.....	19.8	Wool, raisins, rabbit skins.
British Guiana.....	12.2	Bauxite ore, sugar.
New Zealand.....	12.0	Wool, sausage casings.
Jamaica.....	10.5	Sugar, bananas, rum.

Latin American imports, valued at \$126,000,000 in 1946, showed the greatest relative increase of any of the groups, 45 p.c. higher than 1945 and a six-fold increase over the 1935-39 average.

Trends in 1947 show no pronounced changes, with the exception of the very large increase in dollar value of imports from the United States, approximately 57 p.c. higher than in the same period of 1946. Commercial imports from the United Kingdom in the first seven months increased 34 p.c. over the first seven months of the previous year. The 1947 increase in imports from other Empire countries arose principally from the revival of trade with British Malaya and a 50-p.c. increase in imports from India. Latin American imports in the first seven months of 1947 increased by 15 p.c. over the corresponding period of 1946, with heavy imports of vegetable oils from Argentina and crude petroleum from Venezuela. Canadian purchases in 1947 from European and other foreign countries showed large percentage increases, although the dollar value of such purchases was relatively small.

### *Imports, by Leading Countries, 1939 and 1945-47*

NOTE.—Countries arranged in order of importance in 1946.  
(Thousands of Dollars)

Country	1939	1945	1946	1947 (Seven Months)
United States.....	496,898	1,202,418	1,405,297	1,149,822
United Kingdom.....	114,007	140,517	201,433	102,346
British India.....	9,808	30,568	27,877	23,644
Venezuela.....	1,943	17,267	26,886	23,994
Australia.....	11,269	17,180	19,754	9,915
Honduras.....	17	8,017	15,573	5,106
Mexico.....	479	13,508	14,610	7,887
Argentina.....	4,406	7,333	14,372	9,862
Brazil.....	1,111	7,601	14,018	6,874
Cuba.....	889	7,512	13,228	10,134
British Guiana.....	6,891	9,338	12,187	5,117
New Zealand.....	4,266	9,276	11,956	6,925
Switzerland.....	3,459	7,863	11,149	7,084
Jamaica.....	4,357	9,273	10,484	3,218
Colombia.....	5,437	11,678	9,708	5,994
Newfoundland.....	1,955	16,600	9,268	3,188
British South Africa.....	3,991	8,433	7,892	1,633
San Domingo.....	16	6,201	7,127	3,099
Straits Settlements.....	13,145	Nil	5,871	11,180
Barbados.....	3,874	5,466	5,548	5,784
Gold Coast.....	251	6,367	5,381	5,079
Nigeria.....	54	3,422	4,772	1,653
France.....	6,027	273	4,610	5,120
Spain.....	663	4,353	4,484	2,004
Belgium.....	6,778	380	4,429	6,371
Trinidad.....	2,668	3,101	4,137	4,139
Ceylon.....	3,562	5,682	3,745	6,158
Sweden.....	2,289	1,093	3,681	1,610
British East Africa.....	2,626	1,539	3,603	3,521
Netherlands West Indies.....	270	830	3,186	3,480
Fiji.....	2,777	1,607	3,123	1,671
Guatemala.....	164	1,779	2,928	5,539
Italy.....	2,354	1	2,704	2,309
Netherlands.....	3,795	401	2,497	1,843
Salvador.....	45	1,502	2,428	1,217
China.....	2,776	1	2,321	1,845
Portugal.....	275	1,658	2,188	800
Philippines Islands.....	451	1	2,058	6,494
<b>Totals, Above 38 Countries.....</b>	<b>726,043</b>	<b>1,570,037</b>	<b>1,906,513</b>	<b>1,463,659</b>
<b>Grand Totals, Imports.....</b>	<b>751,056</b>	<b>1,585,775</b>	<b>1,927,279</b>	<b>1,483,548</b>
British Countries.....	188,901	271,668	340,501	196,914
Foreign Countries.....	562,155	1,314,107	1,586,778	1,286,634

<sup>1</sup> Less than \$500.

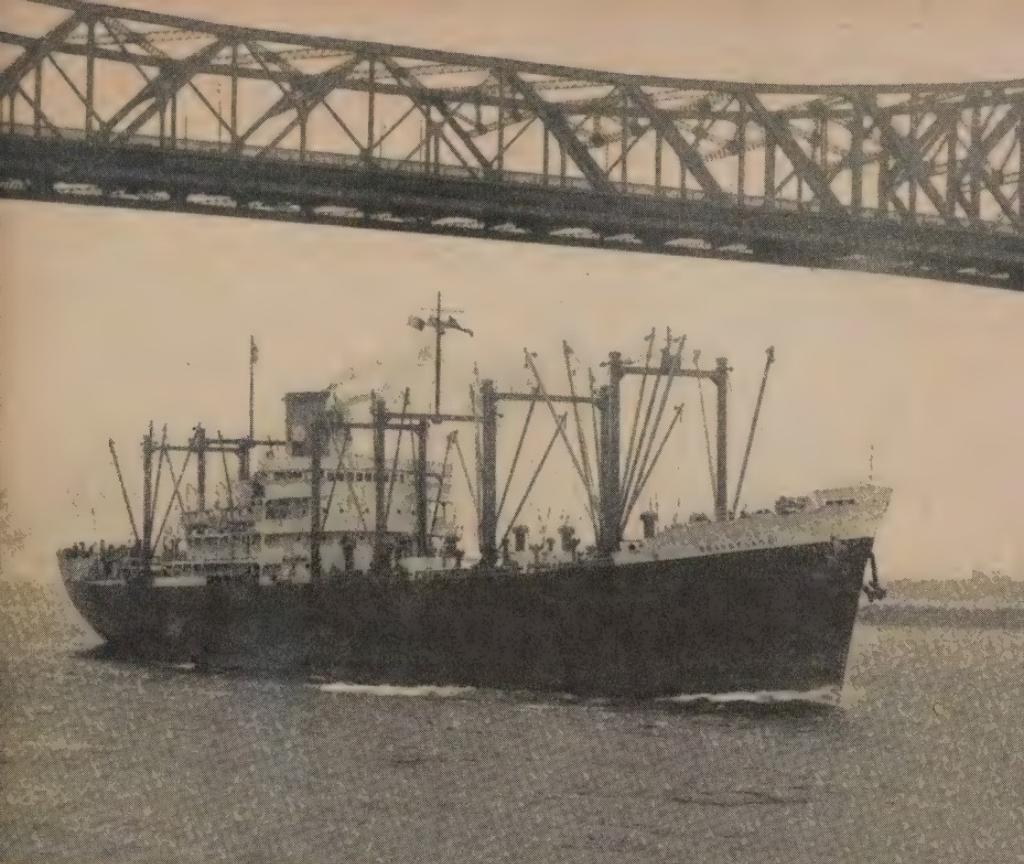
## Principal Imports, 1939 and 1945-47

NOTE.—Commodities arranged in order of importance in 1946.  
(Thousands of Dollars)

Commodity	1939	1945	1946	1947 (Seven Months)
Machinery, except farm.....	42,829	92,781	130,287	116,422
Coal.....	41,579	102,432	120,354	71,632
Petroleum, crude.....	39,677	72,412	89,547	67,910
Fruits, fresh.....	15,384	61,338	69,587	32,007
Farm implements and machinery.....	20,917	50,435	68,352	61,972
Automobile parts.....	25,308	67,855	66,453	54,815
Cotton fabrics.....	10,935	34,944	54,163	58,853
Rolling-mill products.....	32,334	55,049	53,376	43,702
Electrical apparatus.....	13,752	43,052	47,788	40,665
Cotton, raw.....	16,425	39,153	42,812	37,210
Sugar for refining.....	20,226	28,950	32,416	22,414
Automobiles.....	15,674	4,876	31,702	39,876
Books and printed matter.....	15,152	21,445	30,737	18,040
Engines and boilers.....	7,606	28,040	29,462	23,946
Furs.....	7,133	21,205	27,292	12,444
Vegetables, fresh.....	6,151	21,252	25,748	16,743
Glass and glassware.....	7,915	16,098	23,258	18,217
Wool fabrics.....	10,408	14,194	20,115	17,125
Nuts, except coconuts.....	3,508	12,251	19,140	8,573
Paper.....	8,654	13,376	18,834	13,712
Wool, raw.....	4,509	12,327	18,707	10,858
Clay and clay products.....	7,935	13,681	17,825	13,577
Coffee.....	4,603	9,156	16,162	8,270
Oils, vegetable.....	9,415	11,479	15,062	13,560
Gasoline.....	7,998	9,571	14,911	9,798
Stone and products.....	7,612	9,888	14,676	9,636
Jute fabrics.....	4,014	11,039	14,474	11,571
Fruits, dried.....	5,723	7,127	13,921	8,518
Scientific and educational equipment.....	4,762	9,216	15,820	10,196
Rubber, fully and partly manufactured.....	3,371	8,154	13,717	8,364
Synthetic resins.....	1,700	7,632	13,681	10,649
Beverages, alcoholic.....	6,540	8,292	12,911	6,566
Wood, manufactured.....	4,659	8,483	11,467	10,928
Noils, tops, and waste, wool.....	6,072	6,875	11,118	6,740
Coke.....	3,916	11,368	10,888	5,520
Tear.....	10,091	17,729	10,208	10,876
Tools.....	2,377	7,945	10,135	7,371
Artificial silk fabrics.....	2,024	8,410	9,833	10,281
Aircraft.....	5,550	16,001	9,448	6,604
Paints and varnishes.....	4,662	8,660	9,437	7,594
Drugs and medicines.....	3,989	9,440	9,371	7,814
Dyeing and tanning materials.....	6,257	8,297	9,209	6,138
Cotton yarns.....	3,057	7,208	9,197	10,827

## Canadian Balance of International Payments

All of Canada's commercial and financial transactions with other countries are summarized in statements of the Canadian balance of payments. These statements focus attention upon the exchange and financial problems arising out of Canadian trading relations with other countries. The geographical directions and the characteristic unbalance in the flow of Canada's international trade with different countries and currency areas have led to distinct patterns of trade. Canadian exports are predominantly to the British countries and to other overseas countries, and imports are mainly from the United States. Thus there is a customary lack of balance in Canada's trade with the United States in which Canadian imports normally exceed Canadian exports. At the same time the predominant movement of Canadian exports to the United Kingdom and Europe gives rise to another dominating characteristic in Canada's accounts with the rest of the world, a large excess of exports over imports with overseas countries. This pattern of trade in which



*Passing under Jacques Cartier Bridge, Montreal, inbound from London, is the "Beaver-lake", one of the Canadian Pacific's fleet of four fast cargo-liners which maintain an express freight service between Canada and the United Kingdom.*

exports are predominantly to overseas countries, and imports are mainly from the United States, did not in pre-war periods give rise to special problems of financing because surplus income from exports to overseas countries could be freely converted to cover Canadian purchases in the United States. It did lead, however, to close relationships between the Canadian dollar and sterling and the United States dollar because of the normal dependence on sales of sterling to produce United States dollars to cover Canadian expenditures in the United States.

The degree of unbalance in Canada's accounts with the two larger areas, the sterling countries and dollar countries, has been accentuated in the post-war period by the abnormal reconstruction needs of Europe and the slowness in recovery throughout the world compared with the more rapid recovery of the United States, and the dependence upon sources of supply in that country.

Because of the commercial and financial problems arising during the recent war and continuing in the post-war years the Canadian balance of payments must be divided into distinct divisions. These divisions are the balance of payments between Canada and the Sterling Area, which covers all British countries except Canada and Newfoundland and several foreign

nations as well, and the balance of payments between Canada and the rest of the world with which Canada's dealings are on a United States dollar basis and finally, that portion of export trade with other foreign nations which in recent years has been financed out of export credits or by other special means.

Before the War the surplus receipts which Canada normally had from export trade with Britain could be used in meeting Canada's own deficit from current expenditures in the United States. This was possible because the sterling income from exports to Britain was freely convertible into United States dollars. But since 1939 Canada's sterling income has no longer been freely convertible into United States dollars, consequently there is the need for special methods of financing exports to Britain. There is also the need for providing for exports and aiding in reconstruction during the transitional years in the case of many other allied nations whose economies were adversely affected by the War. Without the credits received from Canada for financing exports, these countries would have insufficient current dollar resources to meet expenditures in Canada. During the War, Mutual Aid was the principal form of financing abnormal exports. Later, the loan of \$1,250,000,000 to the United Kingdom and Canada's export credit program under which export credits of \$594,000,000 had been authorized to the end of 1946 became the principal special method of financing overseas purchases in Canada. In addition, considerable amounts of exports from Canada have been financed out of Canada's contribution to UNRRA. Because of these special arrangements, very large proportions of Canadian exports to overseas countries have been financed by the Canadian Government.

In 1946, Canada had an excess of \$458,000,000 of exports of goods and services to all countries over imports of goods and services, but the credit balance with overseas countries was much greater than this balance with all countries because there was at the same time a large deficit in Canada's current account with the United States. The credit balance from trade with all overseas countries amounted to \$1,061,000,000 in 1946, while the current deficit with the United States was \$603,000,000. But almost all of the credit balance with overseas countries was financed by loans and advances by the Canadian Government, which, together with official contributions of relief and aid, totalled about \$969,000,000. The latter form of aid made up \$107,000,000 of this government financing of exports, the remainder being distributed as follows: drawings on loan to the United Kingdom, \$540,000,000, net interim advances to Sterling Area, \$112,000,000, and net export credits and advances to countries receiving export credits \$210,000,000.

The large Canadian deficiency with the United States which reached record proportions was mainly met by increases in net indebtedness to the United States. These changes in position took the form of a reduction in Canada's official reserves of gold and United States dollars of \$263,000,000, and capital inflows of various kinds of \$103,000,000. The remainder of the deficit with the United States was met by \$227,000,000 of gold and convertible exchange received from overseas countries. As a result of these diverse changes during 1946 there was a net outflow of capital from Canada of only \$351,000,000, this being the balance on current account after excluding official relief. Thus while Canada acquired foreign assets in the form of loans extended to overseas countries, these were partly offset by the reduction in Canadian assets in the United States, and by increases in liabilities to the United States

Dollar Area. While the balance of Canadian indebtedness to all countries was therefore reduced, there were appreciable changes in the composition of Canada's external assets and liabilities.

One of the principal changes which occurred in the current account of the balance of payments in 1946 was the re-emergence of a current account deficit with the United States of unprecedented size. Canadian payments for goods and services purchased in the United States exceeded receipts from all sales of goods and services to that country by \$603,000,000. A substantial growth in Canadian imports from the United States accompanied by a decline in receipts from exports was the principal factor contributing to the current deficit. The high levels of income in Canada, rising prices in the United States, and improving supplies of merchandise in that country following the rapid reconversion from wartime to peacetime production, were at the back of this substantial increase in Canadian imports. Canadian incomes were at record peacetime levels. All the main factors contributing to gross national expenditure were exceptionally high—with a large program of private investment and heavy consumption, combined with a current account credit balance and with government expenditures which continued to be large during the reconversion and rehabilitation period. While the rise in imports with the United States was very great, there was also a large decline in receipts from exports, mainly due to the virtual end of sales of war supplies, and to the decline in sales of grain, which had been large in 1945 and earlier years.

But, accompanying the growth of the merchandise deficit with the United States, there were heavier expenditures for other current purposes as well. A great gain in Canadian travel to the United States followed the end of the War with improving transportation conditions, more leisure, higher incomes and improving supplies of merchandise. This was enough to offset practically all of the gain in United States tourist expenditures, with the result that the balance of receipts from the tourist trade in 1946 was just about the same size as in 1945, even though United States expenditures in Canada increased very greatly. At the same time much larger withdrawals of dividends by United States parent companies from Canadian subsidiaries led to a notable growth also in the net payments of interest and dividends to the United States. Withdrawals of earnings accumulated during the War and higher corporate incomes contributed to this rise in income payments. The merchandise deficit also made for larger net payments on freight account by Canada. Although there was some decline in ocean shipping costs paid to United States operators of vessels, there were important increases in inland freight on rail shipments, while Canadian revenue from inland freight carrying Canadian exports to the United States declined. Other current payments to the United States were also heavier and net exports of non-monetary gold failed to rise in value.

### *Tourist Trade*

Canada's tourist trade during 1947 compared very favourably with that during 1946. Poor weather conditions experienced during the first half of the year were not conducive to travel, but new records were established in July and August. The number of tourists who entered the country by automobile, bus, boat and aircraft was well in excess of that in all pre-war years, though slightly fewer entered by train in 1947 than in 1946. Over 1,600,000 foreign



*Trout fishing, Maligne Lake, Jasper National Park, Alta.*

automobiles, principally from the United States, came into Canada on tourist permits as compared with the previous record of 1,492,000 entering in 1946. Increased production of passenger cars in the United States contributed substantially to the volume of motoring tourists.

The millions of short-term visits in both directions across the International Boundary, while not of great importance financially, are invaluable in the interests of international friendship and harmony. The number of such visits from the United States, encouraged by lower prices of numerous commodities in Canada, soared to new heights in 1947. Probably 23,000,000 persons crossed the border into Canada, but over three-quarters of them remained for only a day or so.

On the other hand, with the removal of travel restrictions, a larger number of United States citizens visiting Canada in 1946 and 1947 came from distances farther removed from the International Boundary. There was a notable increase in the entries from California, New Jersey, Connecticut, Florida, Texas and many other States during those two years. Before the War, nearly half of Canada's visitors came from the northeastern States, principally New York and Pennsylvania; about one-third were residents of States bordering on the Great Lakes, mainly Michigan; and the west coast States supplied the bulk of the remainder, or about 12·5 p.c. of the grand total.

One of the basic reasons for United States tourist travel to Canada is to visit friends and relatives. It is estimated that no less than 5,000,000 United States citizens are connected with Canada either by birth or marriage.

In addition to the goodwill and friendly social relations that the tourist trade brings, the monetary returns contribute an important entry on the credit side of the national ledger—both as an impetus to employment, consumption of products and services, and as a source of United States dollar exchange, since the bulk of tourist receipts are from visitors from the United States. Such visitors contributed \$216,100,000 of the total of \$222,700,000 in 1946. Receipts from overseas travel, which are normally less than one-tenth of the total, dropped to negligible proportions during the War. In 1946, despite abnormal conditions of travel, overseas traffic began to resume significant proportions and in 1947, aided by a fast-growing transatlantic air service, it will probably regain its pre-war position.

The balance of payments on travel account between Canada and all countries for the years 1937 to 1946 is given in the following statement. While returns are not yet complete for 1947, it is apparent that new records of tourist expenditures in Canada and of expenditures of Canadians travelling abroad will be established.

Year	Credits (Millions of Dollars)	Debits	Net
1937.....	166	87	+79
1938.....	149	86	+63
1939.....	149	81	+68
1940.....	105	43	+62
1941.....	111	21	+90
1942.....	82	27	+55
1943.....	89	37	+52
1944.....	120	60	+60
1945.....	166	83	+83
1946.....	223	135	+88

An analysis of expenditures of travellers to Canada from the United States classified by means of travel, illustrates the recovery from the effects of wartime restrictions.

Means of Travel	1941 (Millions of Dollars)	1942	1943	1944	1945	1946
Automobile.....	54.0	26.0	17.0	24.4	56.9	98.0
Rail.....	28.0	32.0	49.0	67.2	64.3	61.4
Boat.....	7.0	4.0	6.0	7.9	13.0	17.3
Through bus.....	7.0	6.0	5.0	6.3	12.9	15.8
Aircraft.....	3.0	3.0	3.0	3.2	5.6	10.3
Other (pedestrian, local bus, etc.).....	8.0	8.0	7.0	7.5	10.6	13.3
TOTALS.....	107.0	79.0	87.0	116.6	163.3	216.1



# Construction

**T**HE exigencies of war curbed activities in all phases of peacetime construction. A shortage of houses developed and the remedying of this and other construction deficiencies is necessarily a lengthy process. This chapter treats of the progress made and the means employed to bring about normal conditions in the industry.

## ★ *Government Assistance to the Industry*

There are three Acts of Parliament in effect at the present time under which it is possible to obtain help from the Federal Government for the purpose of building houses: The National Housing Act, 1944; the Farm Improvement Loans Act; and the Veterans' Land Act. The first two are outlined below, together with a statement on the work of Wartime Housing Limited, a Crown company created in 1941 to erect temporary homes for rental purposes in order to relieve housing pressure in congested areas. The Veterans' Land Act is dealt with under the Chapter on Veterans' Affairs, p. 66.

Efforts to meet the housing deficit and to set higher standards call for co-ordination on a national scale. To provide that co-ordination, Central Mortgage and Housing Corporation, a Crown company, was incorporated by Act of the Twentieth Parliament (December, 1945). Its purpose and functions are, briefly: (a) to administer the National Housing Act, 1944; (b) to provide facilities for the rediscounting of mortgages by the lending institutions; and (c) to administer the Emergency Shelter Regulations.

As a result of consolidation of the Federal Government's operations in the housing field, the Corporation also directs the activities of Wartime Housing Limited and, in addition, the non-farm or small holdings operations carried on under the Veterans' Land Act are referred to the Corporation.

### *National Housing Act*

The National Housing Act, 1944, was the third general housing Act to be proclaimed in Canada. The first, the Dominion Housing Act, 1935, was superseded by the National Housing Act, 1938, which in turn was followed by the present Act. The National Housing Act covers virtually the entire housing field.

**Joint Loans.**—Loans are made jointly by the Corporation and approved lending institutions to prospective home-owners or to builders of houses for sale to occupants. Houses must be constructed according to sound, prescribed standards. Loans to purchasers of houses built under the Integrated Housing



*Filling and grading a road-bed. The "filler" is dumped from the tipple cars and graded by the bulldozer.*



*A stretch of road being surfaced with asphalt. Thousands of miles of Canada's highways are bituminous-paved in this manner. The machine, fed by tilted truck in the rear, is adjusted to lay down an asphalt blanket of required thickness.*

Plan or by builders for sale at a price approved in advance by the Corporation are based on the following percentages of lending value: 95 p.c. of the first \$3,000, 85 p.c. of the next \$3,000 and 70 p.c. of the remainder. In computing loans for the purchase of houses without a fixed sale price, the percentages are: 95 p.c. of the first \$2,000, 85 p.c. of the next \$2,000 and 70 p.c. of the remainder. Twenty-five per cent of the money borrowed is furnished by the Corporation; interest payable by the borrower is  $4\frac{1}{2}$  p.c. per annum, calculated semi-annually. Term of the loan may be up to 30 years. Payments of principal, interest and taxes are made in monthly instalments comparable to rent. Joint loans may be made for rental-housing projects on much the same terms, except that the loan must not exceed 80 p.c. of the lending value and that the maximum term is 30 years.

In the first seven months of 1947, a total of 6,650 units were financed under the joint loans section of the Act, involving \$31,955,500, or an average

loan per unit of \$4,805. These figures compare with 5,597 units, involving \$25,396,080, or an average loan of \$4,537 per unit in the same period of 1946.

**Loans to Limited-Dividend Housing Companies.**—Loans may be made directly by the Corporation to a limited-dividend housing company to assist in the construction of a low-rental housing project. Such loans may be for 90 p.c. of the lending value of the project at an interest rate of 3 p.c. per annum. Their period of amortization may be extended to 50 years. Life insurance companies under Dominion jurisdiction are authorized to invest up to 5 p.c. of their Canadian assets in a low- or moderate-rental housing project, and are guaranteed a net return of  $2\frac{1}{2}$  p.c. per annum on such investments.

In 1945, several life insurance companies operating in Canada joined together and formed a mutual institutional holding company in the name of Housing Enterprises of Canada, Limited. Through limited-dividend operating companies, Housing Enterprises is building rental housing in some 35 cities involving the construction of approximately 3,300 units. It is expected that this program will be completed in 1947.

**Loans to Primary Producers.**—The Corporation is authorized to make direct advances to mining, lumbering, logging and fishing companies in outlying areas to assist in providing homes for their employees. Loans are made to, or are guaranteed by, the company concerned; the term of the loan may be as long as 15 years, the rate of interest is 4 p.c. and the company cannot earn on its investment in the housing project more than 4 p.c. interest. The maximum loan is 80 p.c. of the lending value.

**Farm Loans.**—Loans may be made on the following terms to assist in the construction of houses on farms; (a) where a farm is clear of encumbrance, a loan will be the least of \$5,000, the cost of building the house, or two-thirds of the appraised value of the farm; (b) where a farm is already mortgaged, a loan will be the least of \$8,000, the aggregate of the cost of building the house and the amount necessary to discharge all encumbrances on the farm, or two-thirds of the appraised value of the farm. The rate of interest is  $4\frac{1}{2}$  p.c.; the term of the loan up to 20 years.

**Home Extension Loans.**—Loans may be made by banks or approved instalment credit agencies for home improvement and home extension purposes. These loans are intended to assist home-owners to finance additional dwelling units in existing houses. They bear interest at 5 p.c. The section dealing with home improvement loans is not in force owing to the shortage of building materials.

**Home Conversion Plan.**—One of the first measures designed to help relieve the housing shortage, the Home Conversion Plan, was established by a series of Orders in Council beginning with P.C. 2641 of Apr. 1, 1943. These gave the Government authority to lease buildings in certain cities, to convert them into multiple housing units and to sublet them to suitable tenants. Conversions completed total 260, providing 2,108 housing units.

**Integrated Housing Plan.**—The purpose of the Integrated Housing Plan is to encourage the building of houses for sale, preference being reserved for veterans of the Second World War and their dependents. The main features

of the Plan are: (a) a predetermined maximum sales price; (b) priority for materials; (c) a Government guarantee to purchase in the event of non-sale; and (d) sales preference to veterans.

**Research and Community Planning.**—The Corporation is authorized to deal with the investigation of housing conditions and measures to be taken for their improvement, the preparation of plans of low-cost homes, public education on the subject of community planning and all other aspects of research of this kind.

**Slum Clearance.**—The Corporation has taken over administration of the National Housing Act in full, except for grants for slum clearance. In this instance, the Corporation advises the Minister of Reconstruction and Supply, but the grant itself is made by the Minister. However, slum clearance is not considered to be opportune at the present time. The need for shelter is too great to permit the destruction of living accommodation of any kind.

**Land Assembly.**—Because of the shortage of serviced land in almost every Canadian municipality, approved lending institutions are now enabled under the National Housing Act, but only with approval of Central Mortgage and Housing Corporation, to purchase raw land to be used for housing development and to install the necessary services such as roads, sewers and water. The price of the land to the builder or home-owner will be fixed to assure that the home-owner receives full benefit of the economies effected by this method of land assembly.

### *Wartime Housing Limited*

Wartime Housing Limited, a Crown company, was formed in the spring of 1941 to build houses for families and living accommodation for single men and women employed in essential war industries. To the end of 1944, 17,218 houses had been completed, together with 200 other buildings such as staff houses, schools, community halls, etc. Many of these latter units have now served their purpose and have been disposed of through the War Assets Corporation.

With the return of service men the demand for housing increased tremendously. The low-cost rental field opened by the veterans' needs was too great for ordinary handling and the construction activities of Wartime Housing Limited was renewed. The first veterans' housing program was started in 1944 and by the end of August, 1947, a total of 28,445 units had been constructed and occupied in 133 projects across Canada. Other units were under construction.

Each municipality in which these veterans' houses are built co-operates by providing a fully developed lot for \$1. Wartime Housing pays, in lieu of taxes, amounts of from \$24 to \$30 per annum for each house plus \$1 per house for street lighting. Rentals are from \$22 to \$40 per month. At the end of an agreed period, the municipality will be permitted to buy the houses at \$1,000 each.

### *Farm Improvement Loans Act*

The Farm Improvement Loans Act, 1944, is designed to provide short-term and intermediate-term credit to farmers. Under its provisions, the Federal Government authorizes the chartered banks of Canada to make



*Modern homes in Victoria, B.C. These are typical of homes being built in the rapidly expanding suburban areas of other cities.*

loans over a three-year period and up to \$250,000,000 under a 10 p.c. Government guarantee against loss. The maximum of an individual loan is \$3,000, the interest rate is 5 p.c. simple interest, and the repayment periods are from one to ten years, depending upon the amount borrowed and the purpose for which the loan is obtained. The Act restricts loans to farmers.

There are two broad aims behind this legislation, the first of which is the improvement and development of farms. Loans will be made for the installation of modern, labour-saving equipment, more and better live stock, and for other improvements necessary to maximum farm production. The second is the improvement of living conditions on farms, such as the provision of electrification, refrigeration, heating systems, water systems, and all those things that make for comfort and convenience in living and that do so much to eliminate drudgery for the farm housewife.

There are seven classes of Farm Improvement Loans: (1) purchase of agricultural implements; (2) purchase of live stock; (3) purchase of agricultural equipment or installation of a farm electrical system; (4) alteration or improvement of a farm electrical system; (5) fencing or drainage; (6) construction, repair or alteration of, or addition to, farm buildings; and (7) general improvement or development of the farm.

As at July 31, 1947, 29,808 loans had been taken out under this Act for an amount of \$22,581,424.

## ★ Construction Statistics

**Housing.**—In 1945, as a result of increasing emphasis on the urgent need for shelter, the Dominion Bureau of Statistics initiated a series on new residential buildings and dwelling units completed in Canada. Reports on new residential construction were obtained from municipal offices of 623 municipalities, covering housing construction from Jan. 1, 1945. This group of municipalities includes all metropolitan areas, urban centres of 5,000 or over population, and a further selected number chosen on the basis of scientific sampling technique. On a population basis the sample of incorporated localities covers approximately 66 p.c. of the Dominion total—85 p.c. of the urban population and 36 p.c. of the rural population.

During 1946 completions of new dwellings were 41 p.c. above completions in 1945. The percentage of completed single-dwelling units was larger than the preceding year.

Dwelling Units Built, by Type, 1945 and 1946

<sup>1</sup> Includes provincial unorganized areas as well as Yukon and the Northwest Territories.

### **Residential Construction, by Type, 1945 and 1946**

Type	1946		1945	
	No.	P.C.	No.	P.C.
Wood frame and wood siding.....	37,510	68.3	23,025	63.5
Wood frame and brick veneer.....	4,807	8.8	4,011	11.0
Wood frame and stucco on lath.....	6,559	11.9	4,387	12.1
Cinder or cement blocks and stucco.....	1,629	3.0	731	2.0
Solid masonry.....	1,427	2.6	1,108	3.0
Solid brick.....	1,891	3.4	1,797	5.0
All other types.....	1,114	2.0	1,221	3.4
<b>Totals.....</b>	<b>54,937</b>	<b>100.0</b>	<b>36,280</b>	<b>100.0</b>
Summer cottages.....	1,568	—	903	—

About 34 p.c. of the dwelling units built in 1946 were constructed in the 12 major metropolitan areas containing 32 p.c. of the population of the Dominion. There were fewer dwelling units per building in 1946 than in 1945, both in the metropolitan areas and in the country as a whole.

### Comparison of Dwelling Units and Buildings in 12 Metropolitan Areas, 1946

Metropolitan Area	Dwelling Units		Buildings		Dwelling Units per Building
	No.	p.c.	No.	p.c.	
Halifax.....	935	1·4	632	1·2	1·48
Saint John.....	413	0·6	239	0·4	1·73
Quebec.....	1,179	1·8	578	1·0	2·04
Montreal.....	3,956	5·9	2,524	4·6	1·57
Ottawa.....	1,608	2·4	1,331	2·4	1·21
Toronto.....	4,447	6·6	3,988	7·3	1·12
Hamilton.....	689	1·0	565	1·0	1·22
London.....	852	1·3	616	1·1	1·38
Windsor.....	814	1·2	728	1·3	1·12
Winnipeg.....	2,417	3·6	1,928	3·5	1·25
Vancouver.....	4,523	6·7	3,448	6·3	1·31
Victoria.....	964	1·4	748	1·4	1·29
<b>Totals, 12 Metropolitan Areas.....</b>	<b>22,797</b>	<b>33·9</b>	<b>17,325</b>	<b>31·5</b>	<b>1·32</b>
<b>Totals, Canada.....</b>	<b>67,315</b>	<b>100·0</b>	<b>54,937</b>	<b>100·0</b>	<b>1·23</b>

**All Construction.**—The value of work performed by the construction industry in Canada in 1946, according to reports received from 23,793 general, trade and sub-contractors, municipal authorities, the Harbours Board, and Federal and Provincial Government Departments amounted to \$868,661,403. This represented an increase of 59·8 p.c. over the total for 1945.

Construction in Ontario, which accounted for over 40 p.c. of the total in 1946, increased by 60·5 p.c. over 1945. Quebec accounted for about 26 p.c. of the total in 1946 and showed an increase of 50·2 p.c. over 1945. British Columbia and Yukon increased 87·5 p.c. in the same comparison.

### Statistics of the Construction Industry, 1939-46

Year, Province and Group	Persons Employed	Salaries and Wages Paid	Cost of Materials Used	Value of Work Performed	
	No.	\$	\$	\$	
1939.....	148,414	153,442,443	189,497,342	373,203,680	
1940.....	149,830	180,229,498	267,228,786	474,122,778	
1941.....	176,358	235,631,781	370,188,739	639,750,624	
1942.....	175,267	262,043,471	324,732,380	635,649,570	
1943.....	155,300	246,836,035	278,888,384	572,426,551	
1944.....	123,892	197,703,984	200,801,042	449,838,059	
1945.....	146,530	233,991,454	275,621,996	543,579,833	
1946.....	198,851	344,893,057	459,965,741	868,661,403	
<b>1946</b>					
Prince Edward Island.....	541	833,780	1,415,018	2,381,620	
Nova Scotia.....	12,577	18,118,652	19,104,088	40,858,319	
New Brunswick.....	7,340	11,272,121	13,351,512	27,761,110	
Quebec.....	53,802	90,661,720	124,253,737	225,582,288	
Ontario.....	76,870	138,664,306	184,351,191	347,616,749	
Manitoba.....	8,868	15,428,929	23,526,454	43,462,500	
Saskatchewan.....	5,999	10,093,724	15,421,703	29,277,215	
Alberta.....	10,207	18,068,674	26,402,440	51,573,396	
British Columbia and Yukon.....	22,557	41,751,142	52,139,598	100,148,206	
Contractors, builders, etc.....	165,518	295,282,864	426,800,935	775,452,420	
Municipalities.....	12,505	19,438,388	12,526,339	34,082,081	
Harbour Commissions.....	660	1,139,705	532,777	1,797,187	
Provincial Govt. Depts.....	15,427	20,972,861	15,220,591	43,943,196	
Dominion Govt. Depts.....	4,741	8,059,239	4,885,099	13,386,519	

The value of residential construction, which accounted for 22.3 p.c. of the total building construction, showed an increase of 54.3 p.c. over the previous year. The value of other building construction increased by 82.6 p.c. in the same comparison, jobbing trades in connection with building by 46.8 p.c., while engineering increased by 48.9 p.c.

The number of persons employed in the industry increased from 146,530 to 198,851, while salaries and wages rose from \$233,991,454 to \$344,893,057.

### Values of Construction, by Types, 1944-46

Type of Construction	1944	1945	1946	Increase or Decrease 1945 to 1946
	\$	\$	\$	\$
Residential.....	83,927,360	125,524,346	193,626,880	+68,102,534
Institutional.....	21,005,720	30,449,556	48,623,956	+18,174,400
Commercial.....	29,233,965	42,873,383	88,081,972	+45,208,589
Industrial (includes factories, warehouses, mine buildings, etc.).....	71,131,759	82,800,022	151,305,541	+68,505,519
Other (includes armouries, barracks, hangars, etc.).....	15,001,136	6,445,275	8,769,191	+ 2,323,916
<b>Totals, Building Construction</b>	<b>220,299,940</b>	<b>288,092,582</b>	<b>490,407,540</b>	<b>+202,314,958</b>
Streets, highways, etc.....	68,381,994	78,585,511	110,861,127	+32,275,616
Bridges, watermains, sewers, dams, reservoirs, etc.....	22,020,560	27,427,629	46,069,313	+18,641,684
Electric stations and transmission lines.....	19,919,488	24,704,582	48,952,056	+24,247,474
Docks, wharves, piers, etc.....	5,819,364	7,693,748	7,226,246	- 467,502
Other engineering (includes landing fields, parks, canals, dredging, pile driving, etc.).....	36,982,396	20,496,195	23,381,995	+ 2,885,800
<b>Totals, Engineering Construction</b>	<b>153,123,802</b>	<b>158,907,665</b>	<b>236,490,737</b>	<b>+77,583,072</b>
Air conditioning.....	513,683	952,690	2,039,877	+ 1,087,187
Bricklaying.....	1,811,055	2,220,631	2,891,622	+ 670,991
Carpentry work.....	3,179,213	4,478,934	6,266,898	+ 1,787,964
Commercial refrigeration.....	1,589,733	1,498,645	2,279,357	+ 780,712
Concreting and cement work.....	1,407,353	2,269,312	3,557,533	+ 1,288,221
Electrical work.....	9,279,276	14,192,659	20,881,652	+ 6,688,993
Elevators, service.....	2,722,284	3,384,424	5,589,845	+ 2,205,421
Excavating.....	1,288,359	1,704,024	1,960,159	+ 256,135
Flooring.....	965,064	1,061,667	1,723,436	+ 661,769
Glass and glazing.....	1,071,510	1,084,288	1,808,563	+ 724,275
Lathing, plastering and stucco.....	1,505,376	1,895,120	2,687,108	+ 791,988
Masonry and stone work.....	244,857	353,628	816,766	+ 463,138
Ornamental iron work.....	242,436	274,164	768,506	+ 494,342
Painting and decorating.....	10,937,163	12,611,152	17,503,072	+ 4,891,920
Plumbing, heating and sanitary engineering.....	24,460,765	29,295,962	43,990,329	+14,694,367
Roofing, sheet metal.....	1,045,041	1,758,835	2,618,415	+ 859,580
Roofing, all other.....	3,536,472	4,209,906	5,544,855	+ 1,334,949
Sheet metal work, other than roofing.....	3,524,171	4,013,399	6,331,509	+ 2,318,110
Sprinkler installation.....	660,460	1,269,521	1,460,891	+ 191,370
Structural steel work.....	1,710,662	1,600,345	1,987,364	+ 387,019
Tiling, marble and terrazzo.....	953,238	1,236,601	1,766,240	+ 529,639
Weatherstripping and insulation.....	3,447,242	4,409,072	5,146,336	+ 737,264
Wrecking and demolition.....	221,227	469,490	1,297,548	+ 828,058
Unspecified.....	97,677	335,117	845,245	+ 510,128
<b>Totals, Building Trades</b>	<b>76,414,317</b>	<b>96,579,586</b>	<b>141,763,126</b>	<b>+45,183,540</b>
<b>Grand Totals</b>	<b>449,838,059</b>	<b>543,579,833</b>	<b>868,661,403</b>	<b>+325,081,570</b>



**Building Permits.**—Since 1940 the Dominion Bureau of Statistics has collected monthly statistics showing the anticipated cost of building represented by the permits taken out in 204 municipalities. Building permits in 1946 registered an increase of 95 p.c. compared with 1945.

**Building Permits Issued by 204 Selected Municipalities, Classified by Types and by Provinces, 1946**

NOTE.—Additions include alterations and repair.

Type of Construction	P.E.I.	N.S.	N.B.	Que.	Ont.
	\$	\$	\$	\$	\$
Residential.....	94,350	4,192,860	3,372,353	49,828,131	77,170,996
New construction.....	83,500	3,358,801	2,907,850	45,131,490	69,826,625
Additions, etc.....	10,850	834,059	464,503	4,696,641	7,344,371
Institutional.....	125,000	450,043	241,500	10,050,133	6,611,429
New construction.....	—	297,210	204,100	5,432,100	3,985,210
Additions, etc.....	125,000	152,833	37,400	4,618,033	2,626,219
Commercial.....	221,900	2,362,919	2,356,853	29,116,171	40,849,350
New construction.....	164,850	1,506,262	1,571,003	22,352,789	27,590,145
Additions, etc.....	57,050	856,657	785,850	6,763,382	13,259,205
Industrial.....	10,000	364,025	441,947	21,619,619	24,761,238
New construction.....	10,000	281,900	413,000	15,944,580	15,243,595
Additions, etc.....	—	82,125	28,947	5,675,039	9,517,643
Other building.....	—	72,940	24,900	1,201,274	1,127,154
New construction.....	—	72,110	23,700	742,338	498,714
Additions, etc.....	—	830	1,200	458,936	628,440
<b>Totals, All Permits.....</b>	<b>451,250</b>	<b>7,442,787</b>	<b>6,437,553</b>	<b>111,815,328</b>	<b>150,520,167</b>
New Construction.....	258,350	5,516,283	5,119,653	89,603,297	117,144,289
Additions, etc.....	192,900	1,926,504	1,317,900	22,212,031	33,375,878
	Man.	Sask.	Alta.	B.C.	Canada
	\$	\$	\$	\$	\$
Residential.....	10,320,776	11,619,902	18,612,875	25,479,064	200,691,307
New construction.....	9,708,426	10,645,913	17,334,208	23,736,512	182,733,325
Additions, etc.....	612,350	973,989	1,278,667	1,742,552	17,957,982
Institutional.....	997,225	2,137,800	2,168,866	881,829	23,663,825
New construction.....	894,025	1,040,300	1,870,781	695,121	14,418,847
Additions, etc.....	103,200	1,097,500	298,085	186,708	9,244,978
Commercial.....	3,824,200	3,730,746	7,511,830	10,291,412	100,265,381
New construction.....	2,298,600	2,461,775	5,496,129	5,257,082	68,691,634
Additions, etc.....	1,525,600	1,268,971	2,015,702	5,041,330	31,573,747
Industrial.....	1,062,240	394,927	1,050,241	5,051,386	54,761,623
New construction.....	769,550	314,412	820,839	3,731,976	37,529,852
Additions, etc.....	292,690	80,515	229,402	1,325,410	17,231,771
Other building.....	104,900	131,572	395,138	1,156,684	4,214,562
New construction.....	85,115	119,905	294,923	931,957	2,768,762
Additions, etc.....	19,785	11,667	100,215	224,727	1,445,800
<b>Totals, All Permits.....</b>	<b>16,309,341</b>	<b>18,014,947</b>	<b>29,738,950</b>	<b>42,866,375</b>	<b>383,596,698</b>
New Construction.....	13,755,716	14,582,305	25,816,879	34,345,648	306,142,420
Additions, etc.....	2,553,625	3,432,642	3,922,071	8,520,727	77,454,278

**Railways.**—The expenditures of railways on maintenance of way, and structures and equipment are not included in the figures of the construction industries given at pp. 203-204 and are therefore summarized here. For steam railways, expenditures for these purposes in 1946 amounted to \$215,606,439 as against \$213,826,233 in 1945. For electric railways the total for 1945 was \$14,543,278 as against \$12,824,535 in 1944. Expenditures on new lines of steam railways totalled \$3,512,581, and additions and betterments showed a net expenditure of \$35,342,456 in 1946, compared with a total of \$26,662,342 in 1945.

# Labour

**M**ODERN labour is protected by law and the organizations that labour has itself set up or called into existence. This chapter treats of working conditions, the number of strikes and lockouts that take place, wage rates, hours of labour, and unemployment figures.

## *Legislation*

Both the Parliament of Canada and the Provincial Legislatures have enacted laws for the protection of workers in their place of employment. The Dominion and Provincial Departments of Labour administer these and other labour laws but special boards are responsible for workmen's compensation statutes and Mines Departments administer the Acts protecting miners.

Co-operation between the Dominion and the Provinces before and during the War has resulted in fairly uniform principles being applied throughout Canada for the settlement of industrial disputes. Financial assistance from the Dominion has stimulated vocational training and apprenticeship in all provinces.

The Government of Canada provides unemployment insurance through a nation-wide system of employment offices which are concerned with both the payment of claims and the placing of workers in jobs. The Dominion regulates working conditions of its own employees and provides compensation for them in case of accident during employment. Observance is required of specified wage-and-hour conditions by contractors for Dominion public works and equipment and supplies. Dominion laws govern employment on railways and in the mercantile marine, permit peaceful picketing, and prohibit employment on Sunday except under certain conditions. The Dominion Government provides, too, facilities for the purchase of annuities up to \$1,200 a year per individual (see p. 59).

In all provinces, except Prince Edward Island where there is little industrial employment, there are laws for the inspection of mines, factories, shops, and other work-places and for the regulation of wages, hours of work, employment of women and children, apprenticeship and workmen's compensation. Laws have also been enacted to protect freedom of association, to require employers to bargain with the representatives of employees or with trade unions and to prohibit any strike or lockout until after an inquiry. Prince Edward Island in 1945 enacted laws to promote collective bargaining and to prohibit the employment in industry of children under 15 years of age.

## *Labour Organizations*

Before the middle of the nineteenth century there were in Canada only a few local unions of craftsmen. After 1850, organization was stimulated by increased industrial activity and by the marked progress of the union

movement in both Great Britain and the United States. The recently formed national unions in the United States, beginning with the printers and moulders, began to accept the "cards" of Canadian union men seeking work in that country and the Canadian unions took in United States craftsmen. The next step was for the Canadian local unions to affiliate with the national unions. Thus began the "international unions", the Canadian membership of which makes up so large a part of Canadian trade unions. At the present time, the majority of local trade unions are branches of international organizations, either craft or industrial, with headquarters in the United States.

Trade unions in Canada are now divided into four principal groups: (1) those affiliated in Canada with the Trades and Labour Congress of Canada and in the United States with the American Federation of Labor; (2) those affiliated with the Canadian Congress of Labour and in the United States with the Congress of Industrial Organizations; (3) those unions in the Province of Quebec that are linked with the Canadian and Catholic Confederation of Labour; and (4) the railroad brotherhoods of men in train and engine service in the United States and Canada.

At the end of 1946 there were 831,697 union members reported to the Department of Labour, an increase of 120,580 over the 1945 figure. During the calendar year 1945 there had been a decrease of 13,071 in the number of union members due mainly to the drop in employment in certain large war plants. The increase during 1946 reflects, to some extent, the conversion of some war plants to peacetime production, but a large part of it was the result of more active organizing work in certain industrial groups such as "wood and wood products" and "foods". The number of local unions in Canada increased from 4,329 in 1945 to 4,635 in 1946.

According to the reports submitted by the headquarters of the national and international unions, supplemented by reports submitted by the Congresses and Federations of unions and also by independent local unions, there were, at the end of 1946, 356,121 members of unions affiliated with the Trades and Labour Congress, 314,025 affiliated with the Canadian Congress of Labour and 70,367 with the Canadian and Catholic Federation of Labour.

**Unemployment in Trade Unions.**—Reports from trade unions indicated little change in the percentage of unemployment among their members during 1946, the average for both that year and 1945 being 1·4 p.c. The only years since the record was begun in 1919 which showed a lower percentage of unemployment were 1943 and 1944 when wartime production was at its peak. At the end of June, 1947, reports from 2,409 local branches of labour organizations, of which the total membership was 468,269, showed 3,961 or 0·8 p.c. as unemployed; on the corresponding date in 1946 the percentage was 1·3, but increased to 1·5 at the end of the year. The highest level of unemployment indicated by union returns was at the end of 1932 and the beginning of 1933 when the percentage was 25·5, while the period of lowest unemployment was the summer of 1944 when the percentage was 0·3.

### *Strikes and Lockouts*

Improvement in industrial relations in 1947 as compared with 1946 was indicated by the strike statistics for the first eight months of the year. However, the time-loss for this period was greater than for the full twelve months



*Completed sections of trackwork being assembled in the yard of the shop before being moved to final location.*

of any other year in the record except 1919 and 1946, in each case the first year following the end of war. The year 1946 had been marked by an unusually large number of strikes of exceptional length involving relatively large numbers of workers and resulting in a time-loss of more than 4,500,000 man-days. The corresponding figure for 1919 was 3,400,000 man-days. More than 80 p.c. of the 1,580,000 days of lost time in the first eight months of 1947 was due to a strike of coal miners in the Maritime Provinces. By far the most important single cause of strikes in 1947, as in 1946, was the demand for increased wages, often linked with demands concerning other conditions. The number of strikes during the eight-month period in 1947 was 146, and the number of workers involved 52,823. For the similar period in 1946 the number of strikes was 180 and the number of workers involved, 127,417.

**Collective Bargaining and Industrial Disputes.**—The Wartime Labour Relations Regulations, 1944, were designed to facilitate collective bargaining and to aid in settling disputes. Made under the War Measures Act and retained by the Continuation of Transitional Measures Act, they apply now only to transport and communication agencies extending beyond the bounds of any province and to such industries as may be declared by Parliament to be for the general advantage of Canada. Other industries are within the scope of somewhat similar laws enacted by the provinces.

Employers are required to negotiate with the properly chosen representatives of their employees. The National and Provincial Labour Relations Boards, except in Prince Edward Island, each representing employers and employed equally, provide machinery for certifying such representatives where there is a difference of opinion, and for a conciliation officer

or conciliation board to assist the parties in coming to an agreement. Pending settlement in Saskatchewan, and in case of failure to agree in the other provinces, for an additional 14 days after a report of a conciliation board has been received by the parties, there may be no strike or lockout.

These laws forbid, too, any interference by an employer with a trade union or an employee organization, refusal to employ a person because he is a member of a union or employee organization, and intimidation with a view to preventing a worker joining or refusing to join a trade union or employee organization.

### *Wage Rates and Hours of Labour*

Index numbers of wage rates, compiled by the Department of Labour, show the general movement of wage rates for the main industrial groups as well as for individual industries, but cannot be used to compare rates in one industry with those in another. The statistics are average straight-time wage rates or average piece-work straight-time earnings and therefore do not include overtime or other premium payments. From 1930 to 1933 there was a considerable decrease in wage rates, but increases have been general each year since that time. During the period 1939-46, the rise in wage rates amounted to 54·6 p.c.

#### *Index Numbers of Wage Rates for Certain Main Groups of Industries, 1901-46*

(Rates in 1939=100)

Year	Logging	Coal Mining	Metal Mining	Manu- fac- ture	Con- struc- tion	Water Trans- port	Steam Rail- ways	Electric Rail- ways	Tele- phones	General Aver- age <sup>1</sup>
1901...	51·4	47·4	61·2	—	35·3	43·9	33·7	32·8	—	38·1
1905...	57·0	49·5	58·7	—	42·8	44·7	36·5	37·7	—	43·1
1910...	64·0	54·0	62·5	—	50·9	48·4	44·1	44·0	—	49·9
1915...	61·1	58·7	66·2	50·1	59·4	54·0	49·8	50·2	—	53·2
1920...	142·5	113·3	102·9	102·4	106·0	105·2	108·2	99·7	92·2	107·0
1925...	95·2	96·1	93·3	92·3	99·8	90·4	91·2	96·4	89·1	93·8
1930...	97·5	97·1	93·9	95·5	119·1	97·2	100·0	102·3	94·7	99·9
1935...	73·1	95·0	92·6	87·0	93·6	81·1	90·1	94·3	93·0	88·4
1936...	80·9	95·1	94·9	89·1	94·2	82·4	90·1	95·2	93·8	90·0
1937...	93·9	95·6	99·1	96·1	96·9	92·0	96·0	97·8	98·5	96·7
1938...	101·8	100·0	99·6	99·2	99·2	99·1	100·0	99·4	99·7	99·6
1939...	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1940...	104·9	102·1	102·8	104·3	104·5	105·2	100·0	103·9	101·3	103·9
1941...	114·0	109·4	112·2	115·2	111·6	113·3	109·4	109·1	106·4	113·1
1942...	125·9	113·1	118·7	125·5	118·6	125·8	114·8	115·8	112·0	122·5
1943...	143·1	124·8	123·1	136·8	127·7	138·8	125·5	121·2	121·9	133·7
1944...	146·1	146·0	125·2	141·4	129·6	142·2	125·5	125·7	122·4	137·9
1945...	153·3	146·2	128·2	146·5	131·1	144·6	125·5	126·6	125·6	141·8
1946 <sup>2</sup> ...	168·2	146·5	135·7	161·0	143·1	162·3	142·3	139·7	125·2	154·6

<sup>1</sup> Includes laundries.

<sup>2</sup> Preliminary.

In 1946 the standard working hours ranged usually from 44 to 55 in textile mills, 40 to 48 in clothing factories, 44 to 48 in pulp and paper mills, 44 to 55 in paper products, 44 to 60 in woodworking plants, 44 to 55 in metal products plants, 44 to 55 in boot and shoe factories and 45 to 50 in rubber factories. In logging, a 10-hour day was common in all provinces except British Columbia. The eight-hour day prevailed in construction in cities, on steam railways and in mining.

Towards the end of 1944, a statutory 48-hour week became effective in Ontario, as it had been in British Columbia for some years. In 1946, however, British Columbia adopted a 44-hour week, and the next year Saskatchewan stipulated that no person could be employed for more than 44 hours unless an over-time rate of time and one-half was paid. These statutes exempt a few classes and permit exceptions to be made by the administrative authorities.

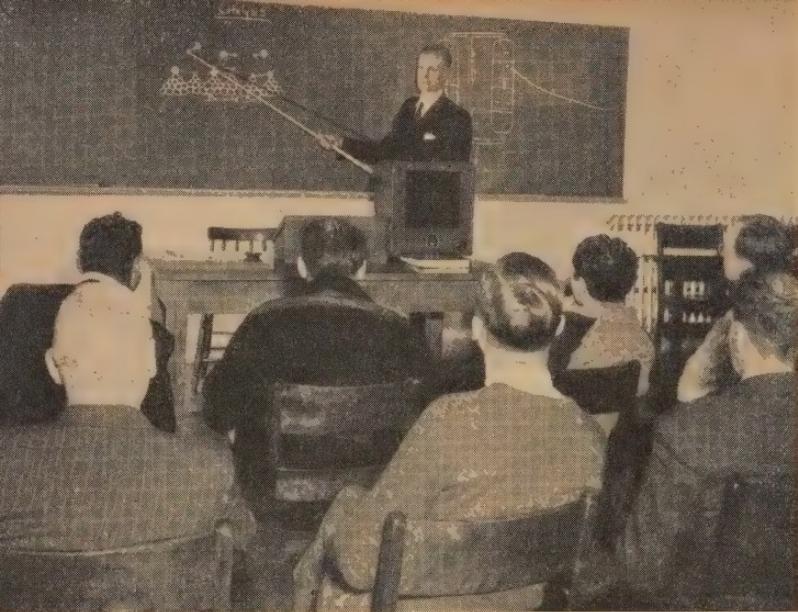
### *Vocational Training*

The Training Branch of the Department of Labour is responsible for the administration of the Vocational Training Co-ordination Act, 1942, which makes available to the provinces moneys for various types of training under certain conditions. Agreements between the Federal and the Provincial Governments set out the conditions to be observed. The Director of Training at headquarters is assisted by a Regional Director in each province. An Advisory Council representing workers, veterans, employers, etc., advises the Minister on policy and procedure in connection with training projects.

The Youth Training Agreements, concerning young people between 16 and 30 years, have been renewed with all provinces, and the Dominion appropriation of \$500,000 is distributed among them, expenditure being shared equally by the Federal and Provincial Governments. Financial assistance is provided for university students and nurses; in addition, thousands of young people, particularly in rural areas, have benefited by training applicable to agricultural pursuits.

*An acetylene - water torch removes buckles or dents in the plates of a sleeping car under construction. This is one of the many time-saving gadgets developed during the War.*





*Employee - training makes jobs more interesting and provides opportunities for self-development. Many key industries are appreciating the benefits of providing such training for their staffs.*

There are Apprenticeship Acts in all provinces. In seven provinces apprenticeship training in skilled trades is aided by the Federal Government under agreements that have been in effect for nearly three years. In these provinces over 11,000 apprentices were registered on June 30, 1947. The funds made available by the Dominion have been used to provide class training of a practical and technical nature. The bulk of the class training is carried out in the building trades and motor-vehicle repair trade.

The training of industrial supervisors and foremen is being carried out in three provinces. Under the present plan the provinces pay one-half of the costs of this training.

The training of industrial workers over 16 years of age, who have previously been gainfully employed and are unable to obtain employment in the occupation for which they are qualified, has not developed to any great extent up to the present time. This type of training was provided for in order to expedite the conversion of war industry into peacetime employment. As a result of the high level of employment there has not been any great demand for training under this plan.

Vocational and technical training on the secondary school level is being assisted in each province for a ten-year period. A \$10,000 annual grant is made to each province and, in addition, if the province appropriates an amount equal to the Dominion contribution, a sum of \$1,910,000 is available to the provinces each year. This amount is divided in proportion to the population in each province between the ages of 15 and 19 years. On the same basis, a special Dominion contribution of \$10,000,000 has been allotted for capital expenditures incurred prior to Mar. 31, 1949.

The vocational and pre-matriculation training of former members of the Armed Forces has been the largest task of Canadian Vocational Training during the past year. Enrolment from the inception of the program to Sept. 30, 1947, totalled 130,000. The peak of veterans' training has now passed. Courses have been amalgamated in most provinces and several training centres have been closed. In many instances, the equipment that was used in the

training centres has been taken over by the provinces for educational purposes and many members of the veteran training staff are now in the employ of the provinces. In this way a permanent benefit to vocational education has resulted.

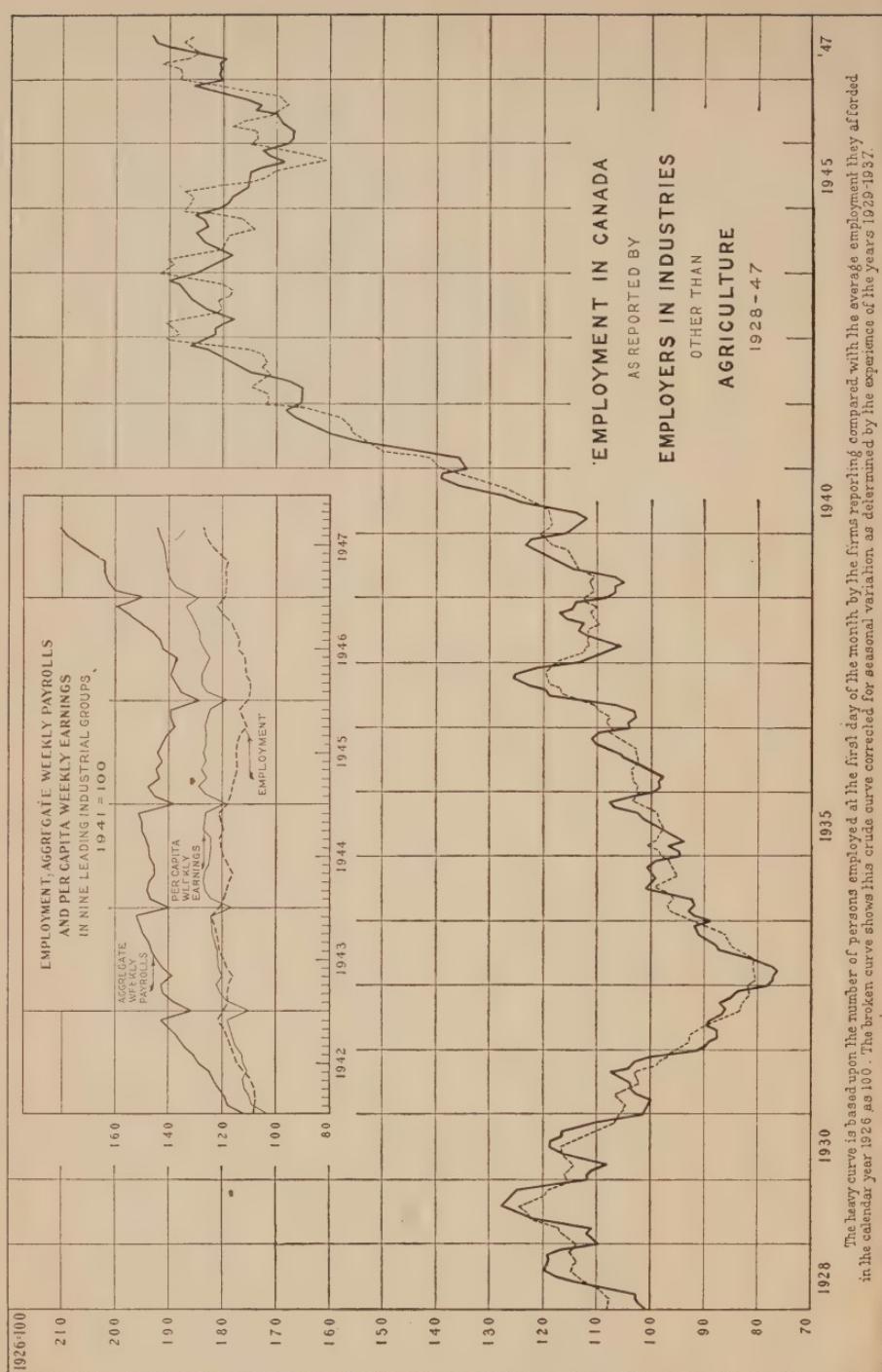
### *Employment in 1947*

At Sept. 1, 1947, industrial employment reached a new height, according to data reported by establishments employing 15 or more persons in the following industrial groups: manufacturing, logging, mining, transportation, communications, construction and maintenance, services (hotels and restaurants, laundering and dry-cleaning plants) and trade; the index (1926=100) was then 192·9, compared with the previous peak of 190·5 at Dec. 1, 1943, when war activity was at its height. The index of employment for the first nine months of the year averaged 184·6, as compared with 170·3 for the same period of 1946, 182·4 in 1943, and 110·9 in 1939. Labour relations during the first nine months of 1947 were more satisfactory than in the same period in the preceding year, when industrial disputes had had a serious effect upon the situation; the strikes that were called during the months under review did not have such a far-reaching effect on the economy as a whole. At the same time, shortages of material in many industries were greatly alleviated.

The appreciably upward trend of employment during the first nine months of 1947 is clearly depicted in the chart on p. 214. The seasonal recession at Jan. 1, though substantial, was below the average for that month in the past 26 years. The index remained fairly constant until June, when it began to climb. The expansion in employment then indicated was greater than at June 1 in any other year since 1941, and considerably exceeded that noted a year earlier, when industrial activity had been seriously affected by labour-management disputes. Between June 1 and Sept. 1, 1947, the general index of employment increased by 4·6 p.c.

In the first nine months of 1947, the Dominion Bureau of Statistics tabulated data from an average of 17,590 of the larger employers, with an average working force of 1,900,000 persons, whose weekly salaries and wages averaged \$67,659,000. The increase of 8·4 p.c. in the index of employment in the period Jan. 1-Sept. 1, 1947, over the same months in 1946, was accompanied by an increase of 20·7 p.c. in the index of aggregate weekly payrolls. The much greater rise in the latter index than in that of employment resulted largely from the payment of higher wage rates in many industries and establishments, although the loss in working time occasioned by industrial disputes in 1946 seriously lowered earnings in that year. The per capita weekly figure in the months under consideration was \$35.59, exceeding by \$3.57 or 10 p.c. the average in the same period of 1946. The latest figure is the highest in the record of six years.

Industrial activity generally was high in all provinces at Sept. 1, 1947, when employment exceeded that reported at the same date in 1946. Especially large gains were made in Ontario, British Columbia, and the Prairie Provinces; the indexes for these provinces were also well above those indicated when wartime activity was at its peak, at Oct. 1, 1943. Although employment in the Maritimes and Quebec showed marked expansion during the past year, the increases were not enough to bring their indexes to the 1943 level.



The improvement noted at Sept. 1, 1947, as compared with a year earlier was general in all of the principal cities. The expansion was particularly marked in Quebec, Hamilton and Windsor. In the case of the latter two cities, industrial disputes had greatly affected the situation at Sept. 1, 1946.

The index of employment in manufacturing in Canada as a whole increased by 8·6 p.c. during the period under consideration, while there was a gain of 13·5 p.c. in recorded employment in the non-manufacturing industries, taken as a whole. The variation in these rates of increase resulted in a more normal distribution of non-agricultural employment as between the two classes than has existed since the early years of the War.

**Distribution of Persons in Recorded Employment in Manufacturing,  
Sept. 1, 1939, 1943, 1946 and 1947**

Industrial Group	1939	1943	1946	1947
Durable manufactured goods.....	38·7	56·7	45·2	46·4
Non-durable manufactured goods.....	58·2	41·7	52·5	51·0
Central electric stations.....	3·1	1·6	2·3	2·6
<b>All Manufacturing Industries.....</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>

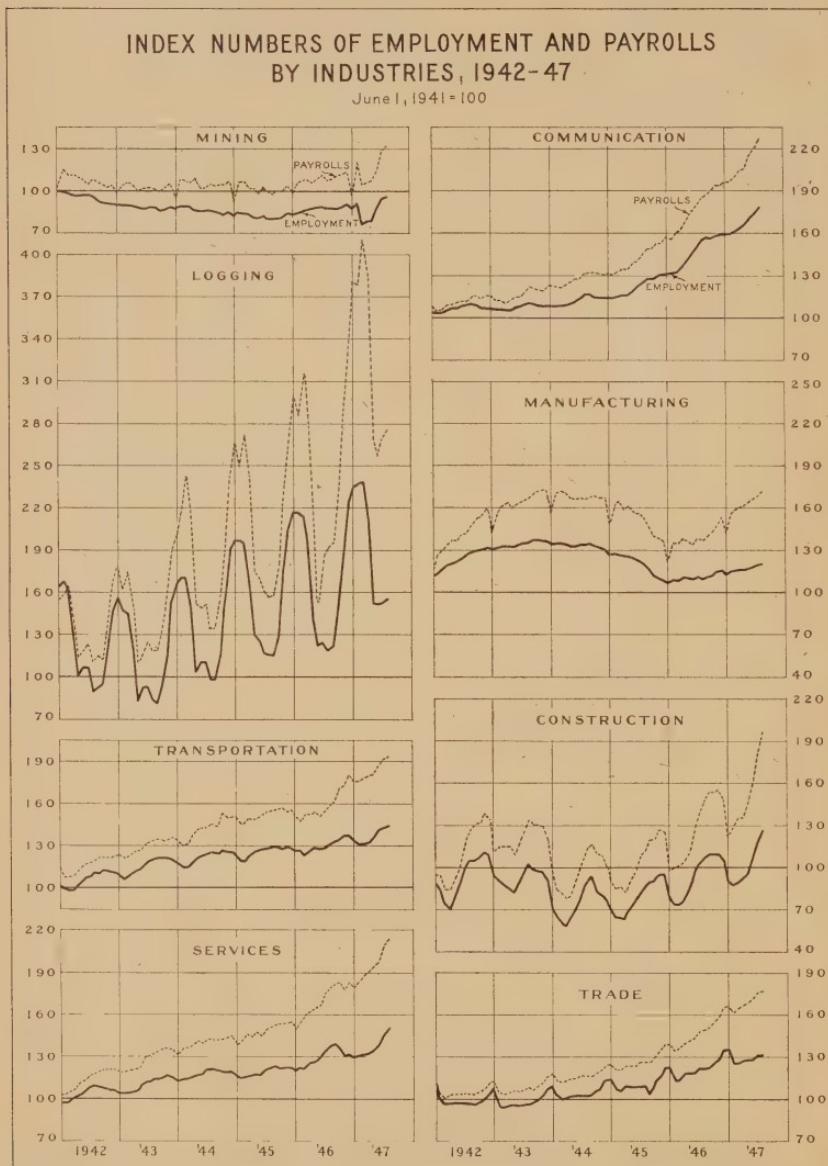
There were pronounced increases in employment in all industries at Sept. 1, 1947, as compared with one year earlier. In the case of manufacturing, the index showed an advance of 8·6 p.c. in comparison with the same period in 1946, when employment generally, but particularly in the manufacturing industries, was greatly affected by labour disputes and resulting material shortages, within this large group of industries. A noticeable shift in the distribution of the workers brought about a closer approximation of the pre-war distribution of recorded employment as between the heavy and the light manufacturing classes than had been indicated for many years; the trends in this respect can be clearly seen in the above table. It is nevertheless noteworthy that establishments in the durable goods industries employed in 1947 an appreciably larger proportion of the total workers reported by the co-operating establishments than in 1939. This is an indication of Canada's growing industrial capacity and the continued heavy demand for new equipment and machinery as well as for replacements unobtainable during the War.

Employment at Sept. 1, 1947, in all non-manufacturing industries, with the exception of mining, reached an all-time maximum for that time of year and each of these industries showed a marked gain over Sept. 1, 1943, when war activity had neared its peak. Although the expansion was still impeded by a shortage of labour, the index of employment for logging was higher by 25 p.c. than at Sept. 1, 1946, standing at 241·9. The continuing demand for pulp and paper and lumber products ensures an unusually active winter.

The number of employees reported in the construction industry increased during 1947, in spite of continued shortages of labour and materials in certain areas. The index advanced by 26·4 points in the year, to reach 178·7 at Sept. 1, 1947. Expansion in employment in mining and transportation was not as great as that in other industries in the 12-month period. The situation in the former industry was greatly affected by the dispute in the Maritime

coal mines during the period February to May, 1947. Employment in communications, trade and hotels and restaurants and dry-cleaning plants showed further improvement, reaching all-time highs during 1947.

Statistics showing the sex distribution of persons in recorded employment have been collected monthly since Feb. 1, 1946, replacing the semi-annual inquiries of 1945 and 1944, and the annual returns for 1943 and 1942. At Oct. 1, 1944, 261 of every 1,000 persons in recorded employment in the eight leading industries were women. By Sept. 1, 1947, this ratio had



*Rotary drill operators screwing in another length of pipe as the oil well is deepened.*



declined to 208, as the shift from industry to the home continued. The decline, although extending to all groups, varied in extent from industry to industry. Manufacturing, communications and trade, in which major expansions in the number of women workers had been shown during the war years, were the industries in which the ratios declined most noticeably in 1947.

### *Unemployment Insurance*

The Unemployment Insurance Act, 1940, providing a co-ordinated program of unemployment insurance and employment offices, is administered by an Unemployment Insurance Commission, consisting of a Chief Commissioner and two Commissioners (one appointed after consultation with employees and one after consultation with employers).

All employed persons are insured unless specifically excepted. Exceptions include certain employments, such as agriculture, fishing, domestic service, which present difficult administrative problems, workers paid weekly who are employed at a rate of more than \$3,120 a year, and those paid monthly or semi-monthly who are employed at a rate of more than \$2,400.

On June 30, 1947, the number of registered employers with insured employees was 178,572 and the number of insured persons 2,736,177.

Contributions to the Unemployment Insurance Fund became payable on July 1, 1941. Employers and their insured workers make contributions according to a graded scale, but in the country as a whole they contribute approximately equal amounts. The Federal Government adds one-fifth of the total amount contributed and, in addition, pays the cost of administration.

War veterans who enter employment are deemed to have been in such employment throughout the period of their war service and contributions are paid on their behalf by the Government.

Rates of contribution and benefit under the Unemployment Insurance Act are related to the insured person's average earnings over the two-year period preceding the date of his claim. Weekly rates of contribution and selected weekly benefit rates are set forth in the table below. Contributions are made (usually) by means of the employer attaching a stamp in the employee's book. The stamp combines the employer's and employee's shares (the employer then deducting the employee's share from his earnings) and the weekly stamp is perforated so that it can be divided into six equal parts for the purpose of recording contributions for periods of less than a week. The daily rate of contribution is one-sixth of the weekly rate.

The daily rate of benefit for an insured person without a dependent is 34 times, and for a person with a dependent 40 times, the individual's daily average contribution in the two years immediately preceding the date of his claim. Daily benefit rates are adjusted to the nearest five cents. The weekly rate is six times the daily rate. The weekly rates of benefit presented in the table are calculated on the assumption that the beneficiary has contributed at the corresponding rate shown in the table during the preceding two years.

#### *Weekly Rates of Contribution and Benefit under the Unemployment Insurance Act*

Class	Earnings in a Week	Weekly Contributions		Denomina-tion of Stamp	Weekly Benefits	
		By Em-ployee	By Em-ployer		Single Person	Person with One or More Dependents
		\$	\$	\$	\$	\$
0	Less than 90 cents daily (or under 16 years of age).....	1	0.27	0.27	1	1
1	\$ 5.40 to \$ 7.49.....	0.12	0.21	0.33	4.20	4.80
2	\$ 7.50 to \$ 9.59.....	0.15	0.25	0.40	5.10	6.00
3	\$ 9.60 to \$11.99.....	0.18	0.25	0.43	6.00	7.20
4	\$12.00 to \$14.99.....	0.21	0.25	0.46	7.20	8.40
5	\$15.00 to \$19.99.....	0.24	0.27	0.51	8.10	9.60
6	\$20.00 to \$25.99.....	0.30	0.27	0.57	10.20	12.00
7	\$26.00 or more.....	0.36	0.27	0.63	12.30	14.40

<sup>1</sup> Workers in this class make no contributions and are not eligible for benefit. They may, however, accumulate benefit rights on the basis of employer contributions.

From July 1, 1941, to June 30, 1947, \$474,951,926 was deposited in the Unemployment Insurance Fund. This amount included contributions from employees, employers and the Government, with interest. Employer and employee contributions to the fund were \$372,340,576 and Federal Government contributions \$74,470,263.

From the first date on which claimants could qualify for benefit, Jan. 27, 1942, to June 30, 1947, the amount paid in benefit was \$91,537,870. In this period, 1,162,298 initial and renewal claims were received by insurance officers for adjudication, 904,358 of which were allowed, 248,727 not allowed, and

9,213 were pending. In this period the number of appeals by claimants to Courts of Referees and the number of cases referred to such Courts by insurance officers was 43,541, of which 29,579 were disallowed.

*Persons Insured under the Unemployment Insurance Act,  
by age Groups and Sex, as at Apr. 1, 1946.*

(Based on 10 p.c. Sample)

Age Group	Male	Female	Age Group	Male	Female
	No.	No.		No.	No.
Under 20.....	111,770	102,270	50-59.....	205,070	34,750
20-29.....	329,520	263,310	60-69.....	117,300	9,850
30-39.....	343,700	118,540	70 or over .....	21,700	1,010
40-49.....	276,460	75,840	Not given .....	88,260	29,350
			All Ages.....	1,493,780	634,920

*National Employment Service*

The Unemployment Insurance Commission operates a free employment service under authority of the Unemployment Insurance Act, 1940.

In the first eight months of 1947, Employment Offices received 1,055,898 applications for employment, were notified of 1,077,196 vacancies and effected 511,488 placements. During the same period of 1946, 1,302,785 applications, 1,232,723 vacancies and 560,177 placements were reported.

*The need for speed and accuracy in compiling records of commercial and financial houses has developed a class of skilled operators who, with the aid of modern machines, make labour more efficient and so help to raise the standards of living for all.*



# National Accounts Public Finance

SINCE governments have existed, no topic has produced more controversy than that of taxation and government expenditures. As shareholders in the national business, Canadians should know the sources of revenue, their national expenditures and what progress is being made. In this chapter the national income and Dominion and Provincial revenues and expenditures are presented.

## ★ *National Accounts*

**Net National Income at Factor Cost and Gross National Product at Market Prices.**—Estimates of gross national product and expenditure and national income indicate the tremendous expansion that has taken place in the Canadian economy since 1938. The gross national product was \$11,417,000,000 in 1946; in 1938 it was only \$5,141,000,000. National income is estimated at \$9,464,000,000 in 1946 and \$3,972,000,000 in 1938. It must be noted, however, that this expansion reflects increases in prices as well as in the volume of production of goods and services.

Gross national product is defined as the market value of all goods and services produced by the labour, capital and enterprise of Canadian residents in a specified period, in this case a year, measured through a consolidated national accounting of all *costs* involved in their production. These costs include factor costs, that is, salaries, wages, interest, rent and profits and, in addition, indirect taxes less subsidies and depreciation and similar business



Two operators bend a steel engraved plate to fit the cylinder of a postage-stamp printing press.

charges. The aggregate of salaries, wages, interest, rent and profits by itself is known as net national income at factor cost or, more briefly, national income. Thus national income measures the aggregate earnings of residents of Canada from current production of goods and services. Salaries and wages combined with military pay and allowances accounted for 63 p.c. of national income in 1938 compared with 57 p.c. in 1946.

Investment income, that is, corporate profits before tax, government trading profits, interest and rent, rose from 17 p.c. of total national income in 1938 to 20 p.c. in 1946. Net income of agriculture and other unincorporated business, a mixture of labour income and investment income, was 20 p.c. of the total in 1938 and 23 p.c. in 1946.

#### *Net National Income at Factor Cost and Gross National Product at Market Prices, 1938-46*

(Millions of Dollars)

Item	1938	1939	1940	1941	1942	1943	1944	1945	1946 <sup>1</sup>
Salaries, wages and supplementary labour income.	2,476	2,565	2,922	3,555	4,219	4,703	4,869	4,859	5,113
Military pay and allowances.....	9	32	193	386	641	910	1,068	1,132	315
Investment income.....	687	776	1,120	1,480	1,717	1,723	1,755	1,911	1,885
Net income of agriculture and other unincorporated business.....	800	901	1,001	1,123	1,696	1,605	1,904	1,742	2,151
<b>Net National Income at Factor Cost.....</b>	<b>3,972</b>	<b>4,274</b>	<b>5,236</b>	<b>6,544</b>	<b>8,273</b>	<b>8,941</b>	<b>9,596</b>	<b>9,644</b>	<b>9,464</b>
Indirect taxes less subsidies.....	630	726	826	1,048	1,073	1,126	1,123	1,000	1,204
Depreciation allowances and similar business costs <sup>2</sup> .....	560	582	655	755	900	929	881	792	803
Residual error of estimate for reconciliation with following table.....	-21	-1	+23	+56	+241	+248	+220	+178	-54
<b>Gross National Product at Market Prices.....</b>	<b>5,141</b>	<b>5,581</b>	<b>6,740</b>	<b>8,403</b>	<b>10,487</b>	<b>11,244</b>	<b>11,820</b>	<b>11,614</b>	<b>11,417</b>

<sup>1</sup> Preliminary. <sup>2</sup> Includes an estimate of "capital outlay charged to current account", which has also been included under "Gross home investment in plant, equipment and housing" in the table on p. 222.

**Gross National Expenditure at Market Prices.**—Gross national expenditure is defined as the market value of all goods and services produced by the labour, capital and enterprise of Canadian residents, in a year, measured through a consolidated national accounting of the *sales* of these goods and services, including changes in inventories. Thus it measures the same total as gross national product but in a different way. Incompleteness or inconsistency of available statistical sources, however, is necessarily reflected in a difference between these aggregates when they are measured independently. The difference between the totals obtained by measurement of gross national product and gross national expenditure is divided equally under the heading of "Residual error of estimate" in the two tables.

## Gross National Expenditure at Market Prices, 1938-46

(Millions of Dollars)

Item	1938	1939	1940	1941	1942	1943	1944	1945	1946 <sup>1</sup>
Personal expenditure on consumer goods and services.....	3,714	3,817	4,334	4,979	5,508	5,822	6,235	6,782	7,495
Government Expenditure—									
War—Goods and services, excluding Mutual Aid, etc.....	36	70	549	1,129	2,222	3,096	3,410	1,876	672
War—Mutual Aid, UNRRA and Military Relief.....	—	—	—	—	1,002	518	960	1,041	187
Non-war.....	685	690	633	647	661	685	735	841	974
Gross Home Investment—									
Plant, equipment and housing <sup>2</sup> .....	576	554	713	995	931	828	756	865	1,241
Inventories <sup>3</sup> .....	7	329	368	218	333	-42	-83	-294	475
Exports of goods and services <sup>4</sup> .....	1,359	1,449	1,792	2,458	2,347	3,443	3,566	3,576	3,170
Imports of goods and services.....	-1,257	-1,328	-1,626	-1,967	-2,275	-2,858	-3,539	-2,895	-2,850
Residual error of estimate for reconciliation with preceding table.....	+21	—	-23	-56	-242	-248	-220	-178	+53
<b>Gross National Expenditure at Market Prices</b>	<b>5,141</b>	<b>5,581</b>	<b>6,740</b>	<b>8,403</b>	<b>10,487</b>	<b>11,244</b>	<b>11,820</b>	<b>11,614</b>	<b>11,417</b>

<sup>1</sup> Preliminary.      <sup>2</sup> See footnote 2 of preceding table.      <sup>3</sup> Includes grain held by the Canadian Wheat Board.      <sup>4</sup> Excludes Mutual Aid, UNRRA and Military Relief.

Gross national expenditure can be divided into four main components: (1) Consumer expenditure; (2) Government expenditure; (3) Gross home investment; and (4) Net foreign expenditure.

Consumer expenditure (personal expenditure on consumer goods and services) comprises expenditure of Canadian residents on consumer goods and services as ordinarily understood except that expenditure on housing is excluded and added to gross home investment. Other consumer durables such as automobiles and refrigerators are included in consumer expenditure. In 1938 consumer expenditure thus defined was \$3,714,000,000 or 72 p.c. of gross national expenditure. In 1946 the figure was \$7,495,000,000 or 66 p.c. of gross national expenditure.

Government expenditure was \$721,000,000 in 1938 or 14 p.c. of gross national expenditure; in 1946 the figure was \$1,833,000,000 or 16 p.c. of gross national expenditure. The 1946 figures reflect a substantial decline from 1944 when government expenditure was \$5,105,000,000, or 43 p.c. of gross national expenditure. It should be noted that these figures include only government expenditure on goods and services. Government outlays for goods and services, family allowances, war service gratuities and similar items are excluded by definition.

Gross home investment includes expenditure on new machinery, residential, commercial and industrial construction, as well as net changes in inventories. In 1938 the figure was \$583,000,000, while in 1946 it had risen to \$1,716,000,000.

Exports of goods and services were maintained in 1946 at the high level of \$3,170,000,000. In 1938 the corresponding figure was \$1,359,000,000.

Sales to consumers, to business, to government and to foreigners include the value of goods and services imported from abroad. In so far as imports are the product of the labour, capital and enterprise of foreigners and not of Canadian residents, they must be excluded from gross national expenditure. This is accomplished by subtracting the value of current imports of goods and services from the preceding items. Thus only the net foreign balance on current account is included in gross national expenditure. In 1946 imports of goods and services were \$2,850,000,000 and in 1938 \$1,257,000,000.

**Personal Income and Its Disposition.**—Personal income is defined as the sum of current receipts of income of persons, whether in cash or in kind. Personal income differs from national income in that it excludes all current earnings not paid out to persons, such as undistributed profits and government trading profits, and includes receipts that have not been earned in the course of production, that is, transfer payments. Personal income increased from \$4,031,000,000 in 1938 to \$9,383,000,000 in 1946.

In 1938, 3 p.c. of personal income was paid in direct taxes, 92 p.c. was spent on consumer goods and services, and 5 p.c. was saved (including net changes in farm inventories). In 1946, the proportions were 8 p.c., 80 p.c. and 12 p.c., respectively. The percentage of personal income saved in 1946 marked a decline from 19 p.c. saved in the war years 1943 and 1944.

The disposition of personal income falls logically into three main groups. A portion is taken in taxes by government. Direct taxes on personal incomes, succession duties and the personal share of motor-vehicle and other licences, permits and fees, are included here. A portion is spent on consumer goods and services. Expenditures on consumer durables such as refrigerators and automobiles are included here but expenditure on housing is excluded. The third portion is saved. Personal saving is reflected in a change of the various assets and liabilities held by persons.

#### *Personal Income, by Sources, 1938-46*

(Millions of Dollars)

Source	1938	1939	1940	1941	1942	1943	1944	1945	1946
Salaries, wages and supplementary labour income.....	2,476	2,565	2,922	3,555	4,219	4,703	4,869	4,859	5,113
Deduct: Employer and employee contributions to social insurance and government pension funds.....	-33	-35	-38	-68	-111	-125	-134	-136	-145
Military pay and allowances.....	9	32	193	386	641	910	1,068	1,132	315
Net income of agriculture and other unincorporated business.....	800	901	1,001	1,123	1,696	1,605	1,904	1,742	2,151
Interest, dividends and net rental income of persons	511	553	594	618	683	717	765	805	833
Transfer Payments to Persons—									
From government.....	263	250	225	198	227	217	264	553	1,103
Charitable contributions of corporations.....	5	6	7	10	12	12	11	12	13
<b>Personal Income.....</b>	<b>4,031</b>	<b>4,272</b>	<b>4,904</b>	<b>5,822</b>	<b>7,367</b>	<b>8,039</b>	<b>8,747</b>	<b>8,967</b>	<b>9,383</b>

<sup>1</sup> Preliminary.

## Disposition of Personal Income, 1938-46

(Millions of Dollars)

Item	1938	1939	1940	1941	1942	1943	1944	1945	1946 <sup>1</sup>
Personal Direct Taxes— <sup>2</sup>									
Income taxes.....	62	61	91	239	433	631	771	733	711
Succession duties.....	32	28	23	30	37	38	40	47	44
Miscellaneous.....	31	32	34	28	24	28	25	25	26
Totals, Direct Taxes..	125	121	148	297	494	697	836	805	781
Personal expenditure on consumer goods and services.....	3,714	3,817	4,334	4,979	5,508	5,822	6,235	6,782	7,495
Personal saving <sup>3</sup> .....	192	334	422	546	1,365	1,520	1,676	1,380	1,107
<b>Personal Income</b> ...	<b>4,031</b>	<b>4,272</b>	<b>4,904</b>	<b>5,822</b>	<b>7,367</b>	<b>8,039</b>	<b>8,747</b>	<b>8,967</b>	<b>9,383</b>

<sup>1</sup> Preliminary.     <sup>2</sup> Actual collections in the current year reduced in the case of income taxes by the estimated refundable portion which has been treated as savings.     Miscellaneous direct taxes include the personal share of motor-vehicle and other licences, permits, and fees.

<sup>3</sup> Estimated residually by deducting personal direct taxes and personal expenditure on goods and services from total personal income.

## ★ Public Finance

This section presents public finance statistics for all levels of government in Canada—Dominion, Provincial and Municipal. It should be noted that the revenue and expenditure tables exclude inter-governmental transfers, subsidies, and payments from the Dominion to the provinces under the Dominion-Provincial Taxation Agreement Act. In addition, the revenues and expenditures are shown on a "net" basis, shared-cost contributions of other governments, institutional revenue and certain other sales of commodities and services, and interest revenue being treated as offsets to corresponding expenditures. Also, since both ordinary and capital expenditure are included, amounts provided for debt retirement have been excluded from the table of expenditures to avoid duplication.

**Combined Revenues and Expenditures.**—Combined revenues of all governments exclusive of inter-governmental transfers amounted to \$3,016,000,000 for 1944, or over 292 p.c. of the 1939 total of \$1,033,000,000. Expenditures, however, increased during this period to \$5,459,000,000 for 1944, equal to 444 p.c. of the \$1,231,000,000 total for 1939. In the same period the gross national product rose from \$5,581,000,000 in 1939 to \$11,820,000,000 in 1944, when it amounted to 212 p.c. of the 1939 figure. A comparison of the index of change in these three factors (using 1939 as the base year) which reflect the rapid expansion and acceleration in governmental finances as a whole, as well as in the general economy of the country, during the first four years of the War, is as follows:—

	<i>Gross National Product</i>	<i>Total Revenues</i>	<i>Total Expenditures</i>
1939.....	100	100	100
1941.....	151	196	189
1942.....	188	261	381
1943.....	202	301	448
1944.....	212	292	444

Prior to the War, the revenues and expenditures of Provincial and Municipal Governments together exceeded those of the Dominion. In 1939, revenues of the Dominion accounted for only 46 p.c. of the combined total, while in 1944 they represented 80 p.c. of the total; and expenditures of the Dominion correspondingly changed from 46 p.c. of the total for 1939 to 88 p.c. of the total for 1944. This is accounted for by the fact that the burden of financing Canada's war effort fell upon the Federal Government, while expenditures of the other Governments decreased slightly. At the same time, the aim of the Federal Government was to finance as large a part as possible of the cost of carrying on a total war effort out of current revenues.

The period from 1939 to 1944 also brought about a change in the relative weight of various Dominion revenues. In the year 1939 the greatest single source of revenue was the general sales tax (\$137,446,000), followed by customs duties and other import taxes (\$106,819,000), and corporate income taxes (\$77,920,000). However, in the year 1944 personal income tax had become the greatest source of revenue (\$672,755,000), followed by corporate income taxes (\$617,709,000), customs duties and other import taxes (\$214,502,000), and general sales tax (\$209,390,000).

### *Comparative Dominion, Provincial and Municipal Revenues, Selected Years, 1933-44*

NOTE.—Figures are for fiscal years ended nearest to Dec. 31. Inter-governmental transfers, subsidies and payments under the Dominion-Provincial Taxation Agreement Act are excluded. SOURCE: Comparative statistics of Public Finance prepared for the Dominion-Provincial Conference on Reconstruction.

Year	Dominion	Provincial and Municipal			Total
		Revenues			
		\$ '000	\$ '000	\$ '000	\$ '000
1933.....	278,181	133,252	294,068	427,320	705,501
1937.....	460,544	221,397	304,161	525,558	986,102
1939.....	480,027	236,223	316,964	553,187	1,033,214
1941.....	1,389,433	301,842	331,206	633,048	2,022,481
1942.....	2,125,745	240,098	330,748	570,846	2,696,591
1943.....	2,522,414	250,646	340,690	591,336	3,113,750
1944.....	2,402,447	262,269	351,148	613,417	3,015,864
Percentage Distribution					
1933.....	39.4	18.8	41.6	60.5	100.0
1937.....	46.7	22.4	30.8	53.2	100.0
1939.....	46.4	22.8	30.6	53.5	100.0
1941.....	68.6	14.9	16.3	31.3	100.0
1942.....	78.8	8.9	12.2	21.1	100.0
1943.....	81.0	8.0	10.9	18.9	100.0
1944.....	79.7	8.7	11.6	20.3	100.0
Index of Change (1939 = 100)					
1933.....	57.9	56.4	92.7	77.2	68.2
1937.....	95.9	93.7	95.9	95.0	93.6
1939.....	100.0	100.0	100.0	100.0	100.0
1941.....	289.4	127.7	104.6	114.4	195.7
1942.....	442.8	101.6	104.3	103.1	260.9
1943.....	525.4	106.1	107.4	106.8	301.3
1944.....	500.5	111.0	110.8	110.9	291.9

**Comparative Dominion, Provincial and Municipal Expenditures  
(Capital and Current), Selected Years 1933-44**

NOTE.—Figures are for fiscal years ended nearest to Dec. 31. Inter-governmental transfers, subsidies and payments under the Dominion-Provincial Taxation Agreement Act are excluded. SOURCE: Comparative statistics of Public Finance prepared for the Dominion-Provincial Conference on Reconstruction.

Year	Dominion <sup>1</sup>	Provincial and Municipal			Total
		Provincial		Municipal	
		\$ '000	\$ '000	\$ '000	
Expenditures					
1933.....	389,587	218,864	301,770	520,634	910,221
1937.....	444,599	359,689	296,288	655,977	1,100,576
1939.....	571,198	354,883	304,580	659,463	1,230,661
1941.....	1,718,787	311,260	292,517	603,777	2,322,564
1942.....	4,102,441	293,637	295,128	588,765	4,691,206
1943.....	4,907,475	300,997	300,579	601,576	5,509,051
1944.....	4,803,049	339,531	316,825	656,356	5,459,405
Percentage Distribution					
1933.....	42.8	24.1	33.1	57.2	100.0
1937.....	40.4	32.7	26.9	59.6	100.0
1939.....	46.4	28.8	24.8	53.6	100.0
1941.....	74.0	13.4	12.6	26.0	100.0
1942.....	87.4	6.3	6.3	12.6	100.0
1943.....	89.1	5.5	5.4	10.9	100.0
1944.....	88.0	6.2	5.8	12.0	100.0
Index of Change (1939 = 100)					
1933.....	68.2	61.7	99.1	78.9	- 74.0
1937.....	77.8	101.4	97.3	99.5	80.4
1939.....	100.0	100.0	100.0	100.0	100.0
1941.....	300.9	87.7	96.0	91.6	188.7
1942.....	718.2	82.7	96.9	89.3	381.2
1943.....	859.2	84.8	98.7	91.2	447.6
1944.....	840.9	95.7	104.0	99.5	443.6

<sup>1</sup> Includes war expenditures.

**Combined Debt.**—As shown in the table on p. 227, the combined total of direct and indirect debt (exclusive of inter-governmental debt) of all governments in Canada amounted to \$18,591,201,000 at the close of their fiscal years ended nearest to Dec. 31, 1944. Large increases in the Dominion debt as a result of war financing have overshadowed reductions in both provincial and municipal debt. However, this increase has been largely in bonds outstanding, and represents additions to internal rather than external debt, as the Dominion was able to finance the War during this period without recourse to the issue of foreign-pay bonds. Dominion direct and indirect foreign-pay bonds have declined by more than \$750,000,000 in the period 1940-44, largely as a result of the repatriation of sterling issues.

Buoyant revenues resulting in over-all surpluses, together with curtailed capital expenditure programs, necessitated partly by wartime restrictions, have made it possible for Provincial Governments to reduce their outstanding debt, some by fairly substantial amounts. Similarly, the general curtailment by municipalities of capital undertakings and works requiring debenture financing, and increased tax collections resulting from general improvement in economic activity, have resulted in progressive reductions in municipal debt.

**Combined Dominion, Provincial and Municipal Direct and Indirect Debt, 1942-44**

NOTE.—Figures for fiscal years ended nearest to Dec. 31.

Item	1942	1943	1944
	\$ '000	\$ '000	\$ '000
<b>Direct Debt—</b>			
Dominion.....	8,676,110	11,784,569	15,104,888
Provincial.....	1,892,182	1,827,213	1,805,770
Municipal.....	1,101,077	1,031,429	980,695
Totals.....	11,669,369	14,643,211	17,891,353
<i>Less</i> Inter-governmental Debt.....	217,447	216,602	248,686
<b>Combined Direct Debt.....</b>	<b>11,451,922</b>	<b>14,426,609</b>	<b>17,642,667</b>
<b>Indirect Debt—</b>			
Dominion.....	885,203	822,904	737,668
Provincial.....	189,980	192,310	189,180
Municipal.....	49,830	48,497	46,686
Totals.....	1,125,013	1,063,711	973,534
<i>Less</i> Inter-governmental Debt.....	59,555	56,541	25,000
<b>Combined Indirect Debt.....</b>	<b>1,065,458</b>	<b>1,007,170</b>	<b>948,534</b>
<b>Grand Totals, Direct and Indirect Debt.....</b>	<b>12,517,380</b>	<b>15,433,779</b>	<b>18,591,201</b>

### ***Dominion Finance***

The Budget presented by the Minister of Finance on Apr. 29, 1947, disclosed, for the year ended Mar. 31, 1947, a surplus greater than the accumulated total of all previous surpluses.

Despite the problems of reconstruction and transition, high levels of income and employment were maintained throughout the year and were reflected in the Dominion's accounts. Revenues of the Federal Government were only slightly below the peak level attained in the previous year, although substantial reductions in income-tax rates had been made.

*Canada Savings Bonds,  
printed on high-grade  
rag paper, roll off  
the press.*



Expenditures fell to about one-half the level of the previous year as the heavy requirements for war, demobilization and reconversion purposes slackened off.

One of the most interesting aspects of Dominion finance to the ordinary citizen is the growth in the net debt of Canada and, in this regard, the following table is of particular interest since it shows the trend from Confederation down to the latest year, 1947. At Confederation the total net debt of Canada was only \$76,000,000 and represented \$21.58 per head of the population. The First and Second World Wars caused staggering increases; the net debt which was \$336,000,000 in 1914 increased to \$2,341,000,000 in 1921, or from \$42.64 per capita to \$266.37 per capita. By the end of the Second World War in 1946, net debt had reached the stupendous total of \$13,421,000,000 or \$1,092.95 per head of the population.

### Dominion Finances, 1868-1947

Year Ended Mar. 31—	Total Revenue	Per Capita Revenue <sup>1</sup>	Total Expenditure	Per Capita Expendi- ture <sup>1</sup>	Net Debt at End of Year	Net Debt Per Capita <sup>1</sup>
	\$	\$	\$	\$	\$	\$
1868.....	13,687,928	3.90	14,071,689	4.01	75,757,135	21.58
1871.....	19,375,037	5.25	19,293,478	5.23	77,706,518	21.06
1881.....	29,635,298	6.85	33,796,643	7.82	155,395,780	35.93
1891.....	38,579,311	7.98	40,793,208	8.44	237,809,031	49.21
1901.....	52,516,333	9.78	57,982,866	10.80	268,480,004	49.99
1911.....	117,884,328	16.36	122,861,250	17.05	340,042,052	47.18
1921.....	436,292,184	49.65	528,302,513 <sup>2</sup>	60.12	2,340,878,984	266.37
1931.....	357,720,435	34.48	441,568,413 <sup>2</sup>	42.56	2,261,611,937	217.97
1939.....	502,171,354	44.57	553,063,098 <sup>2</sup>	49.09	3,152,559,314	279.80
1940.....	562,093,459	49.39	680,793,792	59.82	3,271,259,647	287.43
1941.....	872,169,645	75.79	1,249,601,446 <sup>2</sup>	108.59	3,648,691,449	317.08
1942.....	1,488,536,343	127.73	1,885,066,055 <sup>2</sup>	161.75	4,045,221,161	347.11
1943.....	2,249,496,177	190.44	4,387,124,118 <sup>2</sup>	371.41	6,182,849,101	523.44
1944.....	2,765,481,945	240.34	5,322,717,737 <sup>2</sup>	462.58	8,740,084,893	659.57
1945.....	2,687,334,799	221.75	5,245,611,924 <sup>2</sup>	432.84	11,298,362,018	932.29
1946.....	3,013,185,074	245.37	5,136,228,505 <sup>2</sup>	418.26	13,421,405,449	1,092.95
1947.....	3,007,876,313	239.06	2,634,227,412 <sup>2</sup>	209.36	13,047,756,548	1,037.02

<sup>1</sup> Per capita figures for census years are based on census populations and for intervening years on official estimates. <sup>2</sup> Includes non-active advances to railways and transfers from active to non-active assets.

Revenue from taxation accounted for 80.7 p.c. of total revenues in 1946-47 compared with 73.1 p.c. in 1945-46. Non-tax revenues were slightly higher than in the previous fiscal year, while special receipts and credits declined by 35.5 p.c.

The drop in war, demobilization and reconversion requirements more than accounted for the decrease in total expenditures in 1946-47 as compared with the previous year. Ordinary expenditures at \$1,236,234,650 increased by 16.4 p.c. Important items included in that amount were interest on public debt, \$464,394,876, compensation to provinces under taxation agreements, \$94,380,510, and family allowance payments \$245,140,532. Capital expenditures increased from \$4,508,240 to \$11,200,247, and expenditures for government-owned enterprises from \$1,333,417 to \$10,681,863, mainly because of the deficit incurred by the Canadian National Railways in 1946.

**Summary of Total Revenues and Expenditures, Years Ended  
Mar. 31, 1943-47**

Item	1943	1944	1945	1946	1947
	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Revenues</b>					
Customs Import Duties.....	118,963	167,882	115,091	128,876	237,355
Excise Duties.....	138,721	142,124	151,922	186,726	196,044
Income Tax <sup>1</sup> .....	860,189	1,036,757	977,758	932,729	939,458
National Defence Tax.....					
Excess Profits Tax <sup>2</sup> .....	434,581	428,718	341,305	426,696	442,497
Sales Tax.....	232,929	304,915	209,390	212,247	298,228
War Exchange Tax.....	94,553	118,912	98,164	41,198	338
Other taxes.....	186,784	237,503	260,997	273,886	313,741
Totals, Revenues from Taxation.....	2,066,720	2,436,811	2,154,627	2,202,358	2,427,661
Non-tax revenues.....	116,079	133,283	145,471	160,804	160,870
Totals, Ordinary Revenues..	2,182,799	2,570,094	2,300,098	2,363,162	2,588,531
Special receipts and other credits.....	66,697	195,388	387,237	650,023	419,345
<b>Totals, Revenues.....</b>	<b>2,249,496</b>	<b>2,765,482</b>	<b>2,687,335</b>	<b>3,013,185</b>	<b>3,007,876</b>
<b>Expenditures</b>					
Ordinary expenditures.....	561,251	630,381	767,376	1,061,902	1,236,235
Capital expenditures.....	3,276	2,622	3,164	4,508	11,200
War, demobilization and reconver- sion expenditures (special)....	3,724,249	4,587,023	4,418,446	4,002,949	1,314,798
Other special expenditures .....	31,288	37,496	7,506	17,358	31,926 <sup>3</sup>
Government-owned enterprises...	1,248	1,307	1,358	1,334	10,682
Other charges.....	65,812	63,889	47,762	48,177	29,386
<b>Totals, Expenditures.</b>	<b>4,387,124</b>	<b>5,322,718</b>	<b>5,245,612</b>	<b>5,136,228</b>	<b>2,634,227</b>
<b>Deficits or Surplus....</b>	<b>-2,137,628</b>	<b>-2,557,236</b>	<b>-2,558,277</b>	<b>-2,123,043</b>	<b>+373,649</b>

<sup>1</sup> Net after deducting refundable portion of the tax amounting to \$50,000,000, \$115,000,000, \$95,000,000, \$5,000,000 and \$24,000,000 in the fiscal years 1943, 1944, 1945, 1946 and 1947, respectively.      <sup>2</sup> Net after deducting refundable portion of the tax amounting to \$20,000,000, \$40,000,000, \$124,500,000, \$67,500,000 and \$6,200,000 in the fiscal years 1943, 1944, 1945, 1946 and 1947, respectively.      <sup>3</sup> Includes \$20,562,264 for deficits in certain special accounts of the Canadian Wheat Board.

**The 1947-48 Budget.**—The Budget for the year ending Mar. 31, 1948, was presented in Parliament on Apr. 29, 1947. The chief features of the Budget were substantial reductions in the rates of personal income tax, to take effect from July 1, 1947, and the termination of the excess profits tax at the end of 1947. (See p. 230.)

After taking account of the tax changes, revenues for the 1947-48 fiscal year were estimated at \$2,290,000,000. Expenditures were estimated at \$2,100,000,000, and the prospective surplus at \$190,000,000.

**Borrowings.**—Total borrowings during the year ended Mar. 31, 1947, excluding the renewal of treasury bills, deposit certificates and short-term notes held by the Bank of Canada, amounted to \$888,600,000. Of this total, \$400,000,000 was obtained from an issue of four-year 1 $\frac{3}{4}$  p.c. bonds which were sold to the Bank of Canada and the chartered banks, and the balance from Canada Savings Bonds sold to the general public.

Redemptions of funded debt, including the issues reconverted by the four-year bonds mentioned above, amounted to \$1,042,000,000.

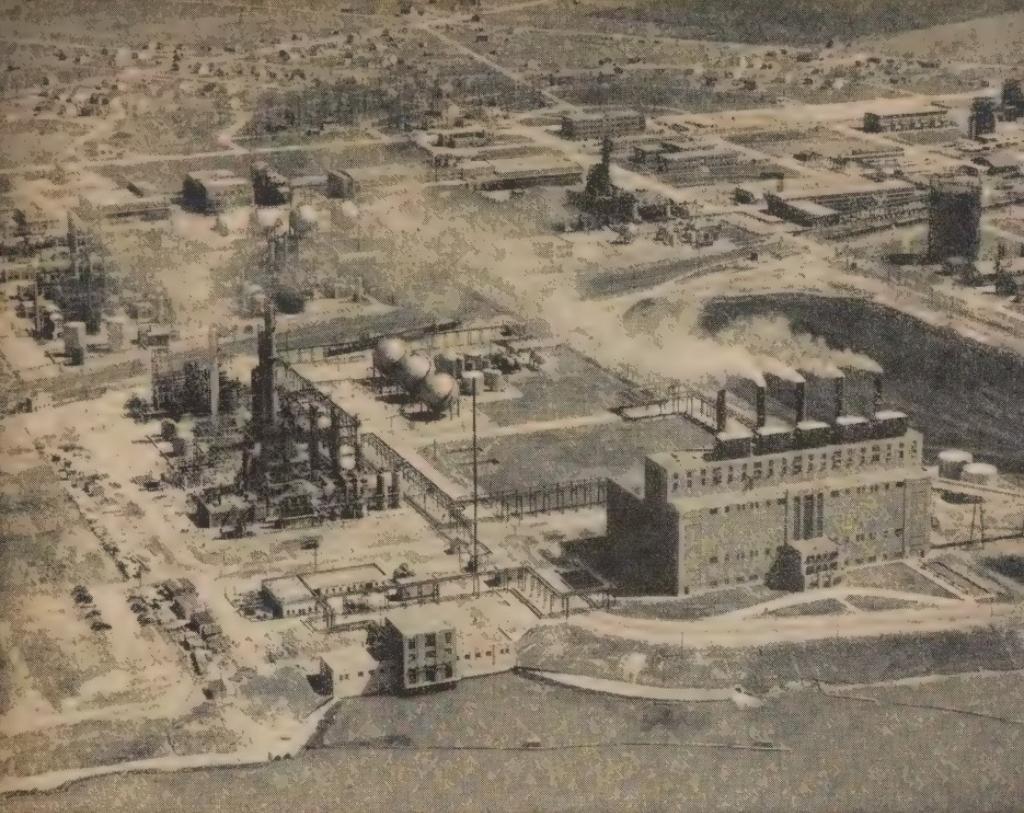
**Income Tax.**—The Income War Tax Act was introduced during the War of 1914-18 as part of what was known as war-tax revenue. However, it was a war tax in name only, for even before the outbreak of the Second World War it had become a permanent and important part of the taxation structure, and the chief means of raising ordinary revenue.

In order to secure as much revenue from taxation as was desirable for the prosecution of the Second World War, the income tax base was broadened and the rates increased. By 1942 the minimum exemption for single persons had been reduced to \$660 from \$1,000 prior to the War and to \$1,200 from \$2,000 in the case of married persons. Rates of tax on income above these exemptions reached a peak in 1943, but a portion of the tax payable was made refundable after the War and, when the refundable feature was dropped in July, 1944, the immediate cash burden on individual taxpayers was reduced. A further reduction of 4 p.c. was made in 1945 and of 16 p.c. in 1946. A new general tax structure for 1947 was introduced in the 1946 Budget which raised the minimum exemptions to \$750 for single persons and \$1,500 for married, coupled with a reduced schedule of tax rates. A further reduction in tax rates became effective in July, reducing the tax burden for the whole of 1947 by approximately 32 p.c. from the preceding 1946 level. Although reductions of income tax have been made in each succeeding year since 1943, the 1948 tax level still remains substantially above the pre-war 1939 level.

Before the outbreak of war the burden of income tax was shared by approximately 250,000 persons; this was expanded to about 2,546,000 by 1946 and is expected to decline to approximately 2,100,000 under the 1947 schedule. The lowering of exemptions was, of course, the prime influence in expanding the body of Canadian income taxpayers but the higher level of employment and of wage scales also had an important effect.

Substantially higher taxes were also levied during the War on business profits. The rate of corporation income tax was raised from a pre-war 15 p.c. to 18 p.c. in 1940. The main wartime medium for taxing business profits, however, was the Excess Profits Tax Act, 1940, which, when taken together with the 18 p.c. income tax, combined, in effect, to levy a 40 p.c. tax on all profit plus an additional 60 p.c. on excess profits. A portion of the tax on excess profits was made refundable to the taxpayer after the War. Effective at Jan. 1, 1947, the tax on business profits was reduced to a straight corporation income tax of 30 p.c. plus a tax of 15 p.c. on excess corporation profits. Wartime agreements with the provinces expired at the end of 1946 and new agreements came into effect on Jan. 1, 1947, whereby a 5 p.c. tax was collected on behalf of seven of the provinces. A 7 p.c. tax was levied by the two provinces remaining outside the agreement. The excess profits tax terminated on Dec. 31, 1947.

Collections of individual and corporation income and excess profits tax for the taxation (calendar) years 1939 to 1947 are shown in the following table. These figures represent taxes collected in respect of income earned in the years enumerated and therefore differ from the table on p. 229 where revenues are shown by government fiscal years.



The Polymer Corporation plant at Sarnia, Ont., a Crown-owned company in which every Canadian has a stake. This Corporation was first established in 1942 to produce synthetic rubber for wartime use and has now expanded its output to include basic chemicals never before manufactured in Canada. It produces the raw materials from which thousands of rubber and plastic articles can be made and has begun supplying utilities to the first of millions of dollars worth of private industries now under construction or soon to be built in its area.

#### Collections of Income and Excess Profits Tax, Taxation Years 1939-47

Tax- ation Year	Individuals and Individual Businesses			Corporations		
	Income Tax	Excess Profits Tax	Total	Income Tax	Excess Profits Tax	Total
	\$	\$	\$	\$	\$	\$
1939...	54,781,130	—	54,781,130	90,498,381	—	90,498,381
1940...	152,245,616	4,533,451	156,779,067	151,394,634	102,518,315	253,912,949
1941...	329,333,512	10,148,521	339,482,033	224,471,245	252,371,160	476,842,405
1942...	391,194,438	18,543,654	409,738,092	270,204,989	396,478,331	666,683,320
1943...	825,781,811	25,375,690	851,157,501	278,507,805	458,896,881	737,404,686
1944...	809,113,007	27,850,327	836,963,334	231,004,405	431,502,987	662,507,392
1945...	662,708,893	24,850,993	687,559,886	236,358,608	429,078,091	665,436,699
1946...	582,137,856	5,567,628	587,705,484	182,022,563	277,940,113	459,962,676
1947...	77,585,639	36,083	77,621,722	19,516,761	25,469,189	44,985,950

<sup>1</sup> The accounts for these taxation years are not yet closed and the figures are therefore not complete. There will be a small change in the 1945 account and substantial additions to the 1946 and 1947 accounts.



An engraver at the Royal Canadian Mint working on the dies for the Canadian Volunteer Service Medal, which is to be distributed to the more than 1,000,000 men and women who served in the Armed Forces and Merchant Marine during the Second World War.

**Estimated Number of Taxpayers, Total Income and Tax Collected Thereon, by Income Classes, 1946**

Income Class	Taxpayers	Total Income	Total Tax	
				No. \$ \$
Below \$1,000.....	443,000	365,501,000	17,133,000	
\$1,000- 2,000.....	1,314,050	1,976,330,000	130,216,000	
2,000- 3,000.....	542,825	1,284,044,000	129,110,000	
3,000- 4,000.....	124,450	423,383,000	63,282,000	
4,000- 5,000.....	45,740	202,919,000	38,335,000	
5,000-10,000.....	57,770	385,883,000	97,066,000	
10,000-25,000.....	15,490	215,855,000	83,462,000	
Over 25,000.....	2,484	113,201,000	65,819,000	
<b>Totals.....</b>	<b>2,545,809</b>	<b>4,967,116,000</b>	<b>624,423,000</b>	

**Estimated Number of Taxpayers, Total Income and Tax Collected Thereon, by Marital Status and Number of Dependents, 1946**

Class	Taxpayers	Total Income	Total Tax	
				No. \$ \$
Single, no dependents.....	954,400	1,286,063,000	196,905,000	
Single, one dependent.....	54,043	92,138,000	15,207,000	
Single, two or more dependents.....	19,399	51,011,000	11,650,000	
Married, no dependents.....	587,980	1,335,545,000	187,188,000	
Married, one dependent.....	423,520	962,228,000	103,998,000	
Married, two dependents.....	294,616	699,801,000	66,538,000	
Married, three dependents.....	142,524	341,938,000	28,250,000	
Married, four dependents.....	48,672	129,786,000	9,511,000	
Married, five dependents.....	14,093	42,837,000	3,034,000	
Married, six or more dependents.....	6,562	25,769,000	2,142,000	
<b>Totals.....</b>	<b>2,545,809</b>	<b>4,967,116,000</b>	<b>624,423,000</b>	

## Provincial Finance

During 1945 (being the fiscal years ended nearest to Dec. 31; 1945), the provinces continued to show an improved financial condition as was the case throughout all the war years.

### Gross Ordinary Revenues and Expenditures of Provincial Governments, by Provinces, 1943-45

NOTE.—Figures are for provincial fiscal years ended nearest Dec. 31.

Province	Gross Ordinary Revenues			Gross Ordinary Expenditures		
	1943	1944	1945	1943	1944	1945
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Prince Edward Island	2,993 <sup>1</sup>	2,564	2,904	2,972 <sup>1</sup>	2,907	3,203
Nova Scotia.....	20,957	22,526	24,367	18,039	20,252	23,187
New Brunswick.....	16,773	17,875	19,454	15,029	17,318	18,981
Quebec.....	116,856	122,308	137,617	106,180	118,306	122,929
Ontario.....	141,268	140,627	159,665	128,923	139,503	151,729
Manitoba.....	24,446	25,669	28,259	20,025	20,641	22,628
Saskatchewan.....	37,454	37,551	41,570	27,743	29,607	34,810
Alberta.....	30,528	32,560	40,651 <sup>2</sup>	22,721	25,002	28,034 <sup>2</sup>
British Columbia.....	44,496	47,295	53,468	37,158	40,619	45,607
<b>Totals.....</b>	<b>435,771</b>	<b>448,975</b>	<b>507,955</b>	<b>378,790</b>	<b>414,155</b>	<b>451,108</b>

<sup>1</sup> Fifteen months.

<sup>2</sup> Exclusive of cash collected *re* Debt Reorganization Program.

The details of combined net ordinary and capital revenues for 1945 show that the greatest single item of provincial revenues continued to be derived from the Federal Government, chiefly as a result of the provisions of the Dominion-Provincial Taxation Agreement Act, 1942. The greatest single item in the net combined ordinary and capital expenditures for 1945 was public welfare.

### Net Ordinary and Capital Revenues of Provincial Governments, 1943-45 with Combined Details for 1945

Province	1943	1944	1945	Item	1945		1944
					Amount	P.C. of Total	P.C. of Total
	\$'000	\$'000	\$'000		\$'000		
P.E.I.....	2,617 <sup>1</sup>	2,183	2,529	Taxes—			
N.S.....	16,937	17,810	19,207	Corporation (arrears)....	903	0·21	0·20
N.B.....	13,724	14,246	15,605	Gasoline.....	58,075	13·59	12·55
Que.....	99,997	103,281	117,236	Income of persons (arrears).....	349	0·08	0·16
Ont.....	117,483	115,712	132,911	Retail sales.....	20,827	4·88	4·76
				Succession duties.....	25,217	5·90	6·26
Man.....	19,995	21,325	24,199	Other taxes.....	23,437	5·49	5·69
Sask.....	30,931	31,002	34,992	Motor-vehicle licences.....	31,800	7·44	8·32
Alta.....	25,920	27,416	34,490 <sup>2</sup>	Liquor control.....	99,659	23·33	18·77
B.C.....	39,019	40,962	46,057	Dominion of Canada.....	105,412	24·67	28·79
				Other revenue.....	61,547	14·41	14·50
<b>Totals.....</b>	<b>366,623</b>	<b>373,937</b>	<b>427,226</b>	<b>Totals.....</b>	<b>427,226</b>	<b>100·00</b>	<b>100·00</b>

<sup>1</sup> Fifteen months.

<sup>2</sup> Exclusive of cash collected *re* Debt Reorganization Program.

**Net Ordinary and Capital Expenditures of Provincial Governments,  
1943-45 with Combined Details for 1945**

NOTE.—Figures are exclusive of debt retirement.

Province	1943	1944	1945	Item	1945		1944
					Amount	P.C. of Total	P.C. of Total
	\$'000	\$'000	\$'000		\$'000		
P.E.I.....	2,546 <sup>1</sup>	2,769	3,323	Legislation.....	4,167	1·09	0·91
N.S.....	13,429	15,156	18,401	General government.....	20,405	5·33	5·32
N.B.....	12,137	15,901	17,352	Protection to persons and property.....	17,411	4·55	4·71
Que.....	94,701	107,928	110,970	Highways, bridges and ferries.....	78,306	20·47	18·28
Ont.....	102,292	113,486	124,777	Public welfare.....	84,887	22·19	21·57
Man.....	14,465	14,572	16,958	Education.....	71,978	18·81	18·11
Sask.....	20,219	22,707	27,851	Agriculture.....	14,064	3·67	4·55
Alta.....	19,890	22,623	23,480 <sup>2</sup>	Public domain.....	23,192	6·06	5·86
B.C.....	30,505	34,773	39,505	Debt charges.....	56,959	14·89	16·79
				Other.....	11,248	2·94	3·90
<b>Totals.....</b>	<b>310,184</b>	<b>349,915</b>	<b>382,617</b>	<b>Totals.....</b>	<b>382,617</b>	<b>100·00</b>	<b>100·00</b>

<sup>1</sup> Fifteen months.  
<sup>2</sup> Exclusive of payments and expenditures re Debt Reorganization Program.

Reference to the following table of debt statistics shows the variation between provinces as well as between provincial direct and indirect debt.

**Direct and Indirect Liabilities of Provincial Governments (less Sinking Funds), 1943-45 with Combined Details for 1945**

Province	1943	1944	1945	Item	1945
	\$'000	\$'000	\$'000		\$'000
Direct Debt—				Direct Debt—	
P.E.I.....	9,118	9,667	10,415	Funded debt.....	1,641,663
N.S.....	88,859	86,400	93,204	Less Sinking Funds.....	195,062 <sup>1</sup>
N.B.....	93,397	93,403	99,128		
Que.....	376,440	376,082	366,429	Net Funded Debt.....	1,446,601
Ont.....	666,757	646,715	639,547	Treasury bills.....	210,149
Man.....	106,320	99,897	94,122	Savings deposits.....	48,448
Sask.....	196,907	205,441	194,463	Temporary loans.....	25,790
Alta.....	148,543	147,519	159,042	Due to trust.....	23,134
B.C.....	140,793	140,749	147,985	Accrued expenditure.....	18,238
				Accounts payable and other liabilities.....	31,975
<b>Totals, Direct Debt</b>	<b>1,827,134</b>	<b>1,805,873</b>	<b>1,804,335</b>	<b>Total, Direct Debt.....</b>	<b>1,804,335</b>
Indirect Debt—				Indirect Debt—	
P.E.I.....	209	162	92	Guaranteed bonds.....	135,134
N.S.....	2,702	2,729	2,721	Less Sinking Funds.....	4,627
N.B.....	2,033	2,256	1,866		
Que.....	30,107	36,814	38,157	Net Guaranteed Bonds....	130,507
Ont.....	122,888	127,734	117,705	Loans under M.I.A. Act....	5,317
Man.....	2,758	2,531	2,313	Guaranteed bank loans....	8,790
Sask.....	16,217	1,824	1,852	Other indirect liabilities....	30,935
Alta.....	6,599	6,254	1,935		
B.C.....	8,797	8,877	8,908		
<b>Totals, Indirect Debt</b>	<b>192,310</b>	<b>189,181</b>	<b>175,549</b>	<b>Total, Indirect Debt.....</b>	<b>175,549</b>
<b>Grand Totals....</b>	<b>2,019,444</b>	<b>1,995,054</b>	<b>1,979,884</b>	<b>Grand Total.....</b>	<b>1,979,884</b>

<sup>1</sup> Including 2,399,000 Sinking Fund held by the Nova Scotia Power Commission.



About one-fifth of total Provincial Government expenditures is spent for public health and welfare services. Here personnel are at work in the main bacteriological laboratory maintained by the Manitoba Government. This is typical of other Provincial Government laboratories where examinations are made to aid in the diagnosis of communicable diseases, etc., and where research into medical problems is conducted.

The gross provincial bonded debt is still largely payable in Canada as has been the case since 1941.

#### *Gross Provincial Bonded Debt, Analysed by Currency of Payments, 1942-45*

Payable in—	1942	1943	1944	1945
	\$'000	\$'000	\$'000	\$'000
Canada only.....	964,860	978,401	979,545	967,965
London (England) only.....	45,681	45,530	45,413	37,215
London (England) and Canada.....	27,477	25,609	20,214	16,214
New York only.....	16,025	19,519	33,905	31,905
New York and Canada.....	371,907	348,835	355,426	353,205
London (England), New York and Canada.....	265,943	261,652	238,963	230,423
Other.....	4,736	4,736	4,736	4,736
<b>Totals.....</b>	<b>1,696,629</b>	<b>1,684,282</b>	<b>1,678,202</b>	<b>1,641,663</b>

#### *Municipal Finance*

Under the provisions of the British North America Act, the several provinces have jurisdiction and control over their respective organizations of municipal government. Requirements for incorporation vary among the provinces, but there is a distinct division of urban from rural. The former are classed as cities, towns and villages; the latter have various designations—townships in Ontario, districts in British Columbia, municipal districts in Alberta; counties in New Brunswick, municipalities in Nova Scotia, parishes and townships in Quebec, and rural municipalities in Manitoba and Saskatchewan. In addition there are counties in Ontario and Quebec; these

include local towns or villages, and rural municipalities, which provide funds for county administration. Nova Scotia and New Brunswick counties are essentially rural municipalities. Some non-incorporated rural areas in Saskatchewan, Alberta, Manitoba and Ontario are organized into "Improvement Districts" administered by the Provincial Governments. In 1945 there were 3,966 incorporated municipalities in Canada.

**Municipal Assessments and Tax Levies.**—Municipal revenues in Canada are derived almost entirely from direct taxation, chiefly of real property. Tax levies increased from 1940 to 1945, while improved economic conditions were reflected in an increase in tax collections, particularly in the Prairie Provinces. As a result, total taxes receivable and property acquired for taxes were reduced in this period.

**Municipal Revenues.**—Municipal revenues for 1945 have been estimated at \$364,600,000 of which \$266,600,000, or 73·1 p.c. represented taxes on real

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*The removal of snow and the maintenance of street traffic during the winter months constitutes a major problem for most Canadian municipalities. The illustration shows snow scrapers clearing Connaught Place in the heart of Ottawa's business district. The huge piles along the curbs are later loaded into trucks (as shown in the inset) and dumped.*



**Municipal Assessed Valuations, Tax Levies, Collections and Receivables,  
by Provinces, 1945, with Totals for 1940-44**

Year and Province	Valuations on which Taxes were Levied	Tax Levy	Tax Collections (Current and Arrears)	Percentage of Levy	Total Taxes Receivable and Property Acquired for Taxes
	\$'000	\$'000	\$'000		\$'000
Totals, 1940.....	7,703,973	270,437	230,029 <sup>1</sup>	101.2 <sup>2</sup>	245,065
Totals, 1941.....	7,859,415	272,458	237,680 <sup>1</sup>	104.6 <sup>2</sup>	237,133
Totals, 1942.....	7,892,698	275,983	239,110 <sup>1</sup>	105.0 <sup>2</sup>	208,406
Totals, 1943.....	7,906,826	278,697	298,196	107.0	196,523
Totals, 1944.....	7,963,405	281,403	257,188 <sup>1</sup>	109.2 <sup>2</sup>	157,073
<b>1945</b>					
P.E.I.....	14,865	377	380	100.6	147
N.S.....	193,620	10,046	10,217	101.7	3,619
N.B.....	184,406	6,709	6,545	97.6	3,375
Que.....	8	3	3	3	3
Ont.....	3,109,062	108,163	110,003	101.7	23,153
Man.....	451,851	19,907	21,666	108.8	10,441
Sask.....	822,478	24,472	26,771	109.4	27,546
Alta.....	522,419	20,127	21,983	109.2	25,151
B.C.....	420,156	20,824	21,145	101.5	12,112
<b>Totals, 1945.....</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>

<sup>1</sup> Excludes Quebec cities and towns.

<sup>2</sup> Quebec estimated.

<sup>3</sup> Information for Quebec not available for 1945.

estate, \$35,400,000, or 9.7 p.c. other taxes, and the remaining \$62,500,000, or 17.2 p.c. other sources of revenue, including provincial subsidies and Tax Agreement subsidies from the Dominion.

**Municipal Expenditures.**—Preliminary estimates indicate that the support of local schools represented the largest single item of expenditure in 1945, amounting to \$95,300,000, or 27.3 p.c. of total municipal expenditure of \$349,100,000. Other services cost \$182,600,000, or 52.3 p.c., and debt service charges and the retirement of debt \$71,100,000, or 20.4 p.c. of the total. In 1939, total expenditures were \$329,038,000, 25.0 p.c. of which went for the support of local schools, 48.3 p.c. for other services, and 26.7 p.c. for debt service and debt retirement.

**Bonded Debt and Other Direct Liabilities.**—The rapid growth of municipalities, together with increased demands and responsibilities for improvements, schools and other services, has resulted in the incurring of a heavy burden of debt.

Reductions in recent years have been due to general curtailment of capital undertakings requiring debenture financing, the extension of provincial control over municipal borrowings and the fact that the greater part of the total municipal debt is represented by serial or instalment-type debentures requiring yearly repayments of principal. While the benefits of debt reduction are of course manifold, certain expenditures have been sorely needed in many communities for the rehabilitation of existing assets and for new improvements necessitated by normal expansion and development. These were sacrificed

in the earlier years in the interests of the taxpayers and later, under wartime conditions, the policy of deferment was continued in order to free the financial market to the Federal Government for war-financing needs.

**Municipal Bonded Debt and Sinking Funds, Selected Years 1919-45,  
and by Provinces 1932 and 1945**

Year	Gross Bonded Indebtedness of Municipali- ties <sup>1</sup>	Total of Sinking Funds	Province	Gross Bonded Indebtedness of Municipalities	
				1932 <sup>2</sup>	1945 <sup>3</sup>
	\$'000	\$'000		\$'000	\$'000
1919.....	729,715	2	P.E.I.....	2,129	3,102
1925.....	1,015,950	2	N.S.....	31,606	30,231
1930.....	1,271,390	2	N.B.....	24,753	23,610
1935.....	1,372,026	267,709	Que.....	463,614	4
1938.....	1,302,201	269,736	Ont.....	504,756	237,675
1939.....	1,280,856	272,010	Man.....	92,471	52,665
1940.....	1,244,001	259,343	Sask.....	59,238	34,249
1941.....	1,196,491	261,459	Alta.....	76,892	39,521
1942.....	1,136,897	258,064	B.C.....	129,333	103,558
1943.....	1,074,462	254,864	<b>Totals.....</b>	<b>1,384,792</b>	<b>4</b>
1944.....	1,006,936	178,761			
1945.....	4	4			

<sup>1</sup> Not entirely comparable due to incompleteness of data prior to 1939. <sup>2</sup> Sinking fund totals not available previous to 1934. <sup>3</sup> Debt for rural schools in the Maritimes not included.

<sup>4</sup> Information for Quebec not available for 1945.

**Direct and Indirect Liabilities of Municipal Governments (less Sinking Funds), by Provinces, 1943-45, with Details for 1944**

Item	1943	1944	1945	Item	1944
	\$'000	\$'000	\$'000		\$'000
Direct Debt—				Direct Debt— <sup>1</sup>	
P.E.I.....	2,471	2,396	2,276	Debenture Debt.....	1,006,936
N.S. <sup>1</sup> .....	21,761	20,396	18,864	Less Sinking Funds.....	178,759
N.B. <sup>1</sup> .....	18,310	16,801	19,214		
Que.....	467,149	455,457	2	Net Debenture Debt.....	828,177
Ont.....	263,094	241,879	224,271	Temporary loans.....	28,565
Man.....	50,226	46,509	43,444	Accounts payable and other liabilities.....	123,952
Sask.....	76,085	71,818	60,984		
Alta.....	51,659	48,280	48,452		
B.C.....	80,674	77,158	78,877		
<b>Totals,</b> <b>Direct Debt..</b>	<b>1,031,429</b>	<b>980,694</b>	<b>2</b>	<b>Total Direct Liabilities (less Sinking Funds) ..</b>	<b>980,694</b>
Indirect Debt—				Indirect Debt—	
P.E.I.....	3	3	3	Guaranteed loans, deben- tures, etc.....	54,719
N.S.....	856	854	699	Less Sinking Funds.....	8,033
N.B.....	360	214	199		
Que.....	3,226	2,992	2		
Ont.....	22,056	21,420	21,480		
Man.....	10,217	9,830	9,417		
Sask.....	3	3	3		
Alta.....	3	3	3		
B.C.....	11,782	11,376	11,316		
<b>Totals, In- direct Debt</b>	<b>48,497</b>	<b>46,686</b>	<b>2</b>	<b>Total Indirect Liabilities (less Sinking Funds)</b>	<b>46,686</b>
<b>Grand Totals.....</b>	<b>1,079,926</b>	<b>1,027,380</b>	<b>2</b>	<b>Grand Total.....</b>	<b>1,027,380</b>

<sup>1</sup> Excludes rural schools in the Maritime Provinces.  
available for 1945.

<sup>2</sup> None reported.

<sup>2</sup> Information for Quebec not available for 1945.

# Banking Insurance

**T**HE banking system of Canada consists of the central bank, known as the Bank of Canada, which, in addition to acting as the Government's banker, managing the public debt and having the right of note issue, etc., is also the banker for the privately-owned commercial banks whose ordinary business is that of making loans for businessmen and commercial purposes. This chapter treats of these banks and of the insurance business of Canada.

## ★ *Banking*

Banking in Canada began to develop some of the features of a central bank system soon after Confederation. These in chronological order are:—

- (1) *Central Note Issue*, permanently established with the issue of Dominion notes under legislation of 1868.
- (2) *The Canadian Bankers' Association*, established in 1900 to effect greater co-operation in the issue of notes, in credit control, and in various other ways.
- (3) *Central Gold Reserves*, established in 1913.
- (4) *Re-discount Facilities*, made a permanent feature of the system in 1923, provided the banks with a means of increasing their legal tender cash reserves at will.
- (5) *The Bank of Canada*, established as a central bank in 1935.

**The Bank of Canada.**—Legislation was enacted in 1934 to establish the Bank of Canada as a central or bankers' bank. All of its stock is now vested in the Federal Government. The Bank regulates the statutory cash reserves of the chartered banks, which are required to maintain not less than 5 p.c. of their deposit liabilities payable in Canadian dollars in the form of deposits with, and notes of, the Bank of Canada. The Bank also acts as the fiscal agent of the Dominion of Canada and may, by agreement, act as banker or fiscal agent for any province. Bank of Canada notes, which are legal tender, will soon become the only source of paper money in Canada since the right of the chartered banks to issue or re-issue notes was cancelled on Jan. 1, 1945.

The Bank of Canada is empowered to buy and sell securities in the open market; to discount securities and commercial bills; to fix minimum rates at which it will discount; to buy and sell bullion and foreign exchange. Under the Exchange Fund Order, 1940, the Bank transferred its reserve of gold to the Foreign Exchange Control Board in which Canada's exchange reserves have now been centralized. At the same time the Bank of Canada's statutory 25 p.c. minimum gold reserve requirement against its note and deposit liabilities was temporarily suspended.



**The Industrial Development Bank.**—The Industrial Development Bank, which commenced operations on Nov. 1, 1944, is a subsidiary of the Bank of Canada but operates as a separate entity. Its function is to supplement the activities of the chartered banks and other lending agencies by supplying the medium and long-term capital needs of small enterprises; the bank does not engage in the business of deposit banking. The capital stock of \$25,000,000, now completely paid-up, was subscribed by the Bank of Canada. In addition, the Industrial Development Bank may borrow up to three times the amount of its paid-up capital stock and reserve fund, by the issue of bonds and debentures, thus providing total resources of \$100,000,000.

The following table shows the classifications of authorized and outstanding loans and investments as at Sept. 30, 1947.

**Loans and Investments of the Industrial Development Bank, by Provinces and Industries, as at Sept. 30, 1947**

Province	Author- ized	Out- standing	Industry	Author- ized	Out- standing
	\$	\$		\$	\$
Prince Edward Island	Nil	—	Foods and beverages.	2,395,100	1,561,863
Nova Scotia.....	178,400	159,650	Textiles and products	1,781,782	1,392,702
New Brunswick.....	574,180	528,275	Lumber and wood products.....	5,706,499	3,952,489
Quebec.....	6,718,342	3,778,335	Machinery and metal products.....	3,115,126	2,765,386
Ontario.....	8,121,650	6,165,779	Building supplies, clay, glass and plas- tics.....	982,484	770,844
Manitoba.....	904,196	656,225	Chemicals.....	2,948,784	604,216
Saskatchewan.....	201,300	161,496	Refrigeration.....	1,284,073	949,965
Alberta.....	1,663,444	1,016,038	Other.....	1,544,189	1,332,530
British Columbia and Territories.....	1,396,525	864,197			
<b>Totals.....</b>	<b>19,758,037</b>	<b>13,329,995</b>	<b>Totals.....</b>	<b>19,758,037</b>	<b>13,329,995</b>

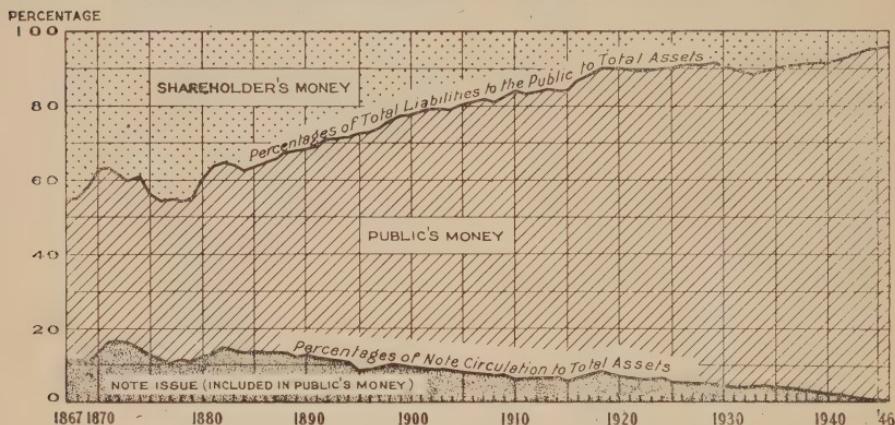
**Commercial Banking.**—While the aggregate supply of money is determined by the central bank, it rests with the chartered banks to provide the individual credit requirements of commerce and industry of the public generally. There are ten banks chartered under the Bank Act and only they, and two long-established savings banks, in addition to the Bank of Canada, are legally entitled to call themselves "banks" or to use the word "banking" in connection with their business.

The branch bank is perhaps the most distinctive feature of the Canadian system as it exists to-day, and for a country such as Canada, vast in area and with a small population, the plan has proved a good one. There has been no bank failure since 1923 and note holders have experienced no losses, whatever since 1881.

The ten commercial banks have over 3,000 offices spread out over the Dominion, many located in small villages which would be quite unable to support an independent bank. The head offices of the banks neither take nor lend money—all the banking business is done by the branches, each branch enjoying considerable independence. But the fact that these branches are linked has a very important bearing on the country-wide economic situation.

Stringency of cash at one point may be met from another and deposits at one place not needed for local loans may be made available elsewhere. Also nation-wide information is available at all points. In addition to branches in Canada, many banks are represented in the international field. At the beginning of 1947, the different banks had among them 133 branches (not including sub-agencies) in other countries.

### PERCENTAGE DISTRIBUTION OF LIABILITIES TO ASSETS



### Statistics of Individual Chartered Banks as at Oct. 31, 1947, with Totals for Selected Years from 1930

NOTE.—Annual figures are averages from the respective monthly statements except in the case of the numbers of branches which are as at Dec. 31.

Bank and Year	Branches in Canada and Abroad <sup>1</sup>	Total Assets	Liabili- ties to Share- holders	Liabili- ties to the Public	Total Liabili- ties	Loans and Dis- counts	Total Deposit Liabilities <sup>2</sup>
		No. '000,000	\$ '000,000	\$ '000,000	\$ '000,000	\$ '000,000	\$ '000,000
Bank of Montreal.....	459	1,898	80	1,817	1,897	458	1,740
Bank of Nova Scotia.....	301	714	36	676	712	258	628
Bank of Toronto.....	187	383	20	363	383	116	346
Provincial Bank of Can- ada.....	131	141	6	135	141	38	134
Canadian Bank of Com- merce.....	484	1,427	60	1,364	1,424	404	1,293
Royal Bank.....	639	2,106	75	2,030	2,105	574	1,888
Dominion Bank.....	125	361	17	343	360	140	323
Banque Canadienne Na- tionale.....	219	386	14	371	385	136	363
Imperial Bank of Canada	171	415	17	397	414	171	378
Barclay's Bank (Canada)	2	34	2	32	34	3	22
<b>Totals, Oct. 1947....</b>	<b>2,718</b>	<b>7,865</b>	<b>327</b>	<b>7,528</b>	<b>7,855</b>	<b>2,298</b>	<b>7,115</b>
<b>Totals, 1946.....</b>	<b>2,718</b>	<b>7,430</b>	<b>290</b>	<b>7,124</b>	<b>7,414</b>	<b>1,643</b>	<b>6,772</b>
<b>Totals, 1945.....</b>	<b>2,619</b>	<b>6,743</b>	<b>282</b>	<b>6,439</b>	<b>6,721</b>	<b>1,505</b>	<b>6,160</b>
<b>Totals, 1944.....</b>	<b>2,593</b>	<b>5,990</b>	<b>282</b>	<b>5,689</b>	<b>5,972</b>	<b>1,344</b>	<b>5,422</b>
<b>Totals, 1943.....</b>	<b>2,589</b>	<b>5,148</b>	<b>282</b>	<b>4,849</b>	<b>5,131</b>	<b>1,334</b>	<b>4,592</b>
<b>Totals, 1942.....</b>	<b>2,642</b>	<b>4,400</b>	<b>281</b>	<b>4,102</b>	<b>4,383</b>	<b>1,370</b>	<b>3,834</b>
<b>Totals, 1939.....</b>	<b>2,861</b>	<b>3,592</b>	<b>279</b>	<b>3,298</b>	<b>3,578</b>	<b>1,244</b>	<b>3,061</b>
<b>Totals, 1935.....</b>	<b>2,978</b>	<b>2,957</b>	<b>278</b>	<b>2,668</b>	<b>2,946</b>	<b>1,276</b>	<b>2,427</b>
<b>Totals, 1930.....</b>	<b>3,598</b>	<b>3,237</b>	<b>305</b>	<b>2,910</b>	<b>3,215</b>	<b>2,065</b>	<b>2,517</b>

<sup>1</sup> As at Dec. 31 of previous year. Does not include sub-agencies which numbered 637 in 1946.

<sup>2</sup> Excluding inter-bank deposits.

The primary function of the bank is to provide a safe repository for savings and surplus funds and to furnish credit for carrying on the business of the country. Credit is given in a variety of ways. Direct loans are made, the proceeds of which customers use for purchasing raw materials, paying wages and other operating expenses or for the purchase of goods for resale. Letters of credit are issued to finance the importation of goods. In this way the bank exchanges its well-known and acceptable credit for the less-known credit of its customers. Apart from the deposit and loan facilities provided, the banks render innumerable services to the communities in which they serve.

**Cheque Payments.**—The amount of cheques cashed by the banks reached a peak in 1946, reflecting the active economic conditions obtaining during the war years. A continuous advance was shown year by year from 1938, the increase in 1946 over that year amounting to 124 p.c. Transactions of this nature amounted to \$46,670,000,000 in 1929, the culmination of the previous major economic cycle, about 33 p.c. less than the \$69,248,000,000 recorded in 1946. The total for the first ten months of 1947 was 6·7 p.c. higher than for the same months of 1946.

#### Cheques Cashed at Clearing-House Centres, 1942-46

Economic Area	1942	1943	1944	1945	1946
	\$	\$	\$	\$	\$
Maritime Provinces.....	1,075,736,890	1,243,762,861	1,327,660,964	1,553,590,758	1,604,018,266
Quebec.....	12,751,093,627	15,373,881,025	17,222,287,360	19,309,332,983	20,749,359,813
Ontario.....	22,136,164,250	24,681,702,142	26,902,944,561	31,543,361,615	30,401,955,884
Prairie Provinces.....	6,722,376,622	9,199,963,592	11,488,439,812	11,562,164,231	11,124,679,682
British Columbia.....	2,840,882,813	3,297,405,107	3,735,621,710	4,416,363,574	5,367,593,788
Totals.....	45,526,254,202	53,796,714,727	60,676,954,407	68,384,813,161	69,247,607,433

It is estimated that about 80 p.c. of Canada's business transactions are financed by cheques, payments in notes and coin being of relatively minor proportions. Thus, the amount of cheques paid through the banks and charged



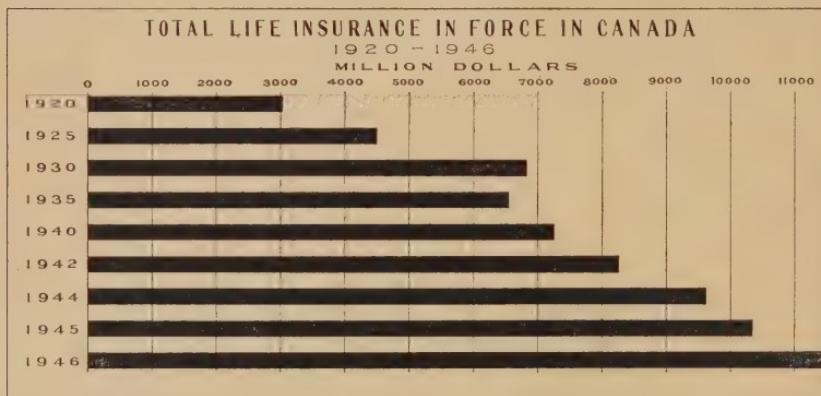
Bank records are kept up to date by the use of modern machines. These machines can post 450 items per hour in the ledgers, which are balanced daily.

to deposit accounts is widely used as a measure of the volume of financial transactions. A record of such payments is available for the principal commercial centres for a period of more than 20 years.

## ★ Insurance

**Life Insurance.**—The life insurance business was introduced into Canada by companies from the British Isles and the United States about the middle of the nineteenth century. By 1875 there were at least 26 companies competing for the available business in Canada, as against 41 active companies registered under the Acts of Canada and a few provincial companies in 1946. Of the 41 active companies so registered, 28 were Canadian, 3 British, and 10 foreign.

As a result of the adaptation of life insurance policies to the needs of the public and of the growing wealth of the country, the increase in the amount of life insurance in force has been remarkable. The life insurance in force in Canada in 1869 was less than \$36,000,000 as compared with over \$11,500,000,000 at the end of 1946, the latter figure including \$281,000,000 carried by provincial life companies and \$17,000,000 by fraternal benefit societies. Thus the total life insurance in force in Canada at the end of 1946 was approximately \$934 per capita. The premium income from such business increased from \$97,000,000 in 1920 to \$230,000,000 in 1930, and to \$299,000,000 in 1946.



**Fire Insurance.**—As at Dec. 31, 1946, there were 270 fire insurance companies registered under the Insurance Acts of Canada and doing business in Canada, of which 59 were Canadian, 73 were British, and 138 were foreign companies, whereas in 1875, the first year for which authentic records were collected by the Insurance Department, 27 companies operated in Canada—11 Canadian, 13 British, and 3 United States. The proportionate increase in the number of British and foreign companies from 59 to 78 p.c. of the total number is a very marked point of difference between fire and life insurance in Canada, the latter being carried on very largely by Canadian companies.

The enormous increase that has taken place throughout the years of record in the amount of fire insurance in force is due partly to the growth



*Sun Life Building, Dominion Square, Montreal, Que.*

of the practice of insurance; it is also important as an indication of the growth of the value of insurable property in the country, and thus throws light upon the expansion of the national wealth of Canada. In 1869 the amount was \$200,000,000, by 1900 it had increased to nearly \$1,000,000,000, by 1920 to just under \$6,000,000,000, by 1940 to over \$10,700,000,000, and by 1946 to over \$17,000,000,000; with the business of provincial companies and the business in Canada of Lloyds added, the 1946 figure exceeded \$19,000,000,000.

**Casualty Insurance.**—Casualty insurance includes: accident (personal accident, public liability and employers' liability); combined accident and sickness; aircraft; automobile; boiler and machinery; credit; earthquake; explosion; falling aircraft; forgery; guarantee (fidelity and surety); hail; inland transportation; live stock; personal property; plate glass; real property; sickness; sprinkler leakage; theft; weather; and windstorm. In 1946 there were 273 companies transacting such insurance, of which 58 were Canadian, 72 British and 143 foreign.

Of the classes of business mentioned those accounting for the largest and the most rapidly increasing premium income are automobile, personal accident and sickness (including combined accident and sickness), and personal property for which the premiums written were less than \$36,000,000 in 1941 and over \$66,000,000 in 1946. In the same period the premiums for all the casualty classes increased from \$48,340,334 to \$87,464,737. Premium income of provincial companies and Lloyds brings the total to \$96,602,868.



# Education Science Culture

FORMAL education, under the British North America Act, was assigned to provincial control with few reservations. Indian schools have always been a charge of the Federal Government, as has education in the penitentiaries. The Federal Government has supported education in the Armed Forces, including such institutions as the Royal Canadian Naval College, and the Canadian Officers Training Corps, University Air Training Corps, University Naval Training Division and some Cadet Training. In a more indirect way the interest of the Federal Government is observable in the educational work of the Canadian Broadcasting Corporation and National Film Board, etc., much of which is planned in co-operation with representatives of the Provincial Governments and intended for use in the schools. Otherwise each of the nine provinces by itself or through co-operation with other provinces administers its own school system.

The Canadian public is taking an unprecedented interest in education, particularly in the extension of secondary education to that third of the products of primary schools that does not enter high school, and in the improvement of the curriculum, so that more than half of those who enter high school will not drop out before having completed their course. Vocational-guidance directors have been established in most provinces, and vocational guidance is becoming an integral part of the high-school curriculum. Increasing reliance is being placed on the 'composite high school' in provinces other than Quebec, where there have always been more distinct types of schools—academic, technical, agricultural, etc. In the Maritime Provinces the location and construction of composite rural high schools is an important part of the recent reorganization into larger administrative areas. Although awaiting the recommendations of the Royal Commission on Education, Ontario has already organized half the Province into township areas for elementary schools, and had organized 39 larger high-school districts by 1946. Saskatchewan is well advanced with the establishment of large administrative areas and Alberta, where the larger areas were adopted several years ago, has been experimenting with dormitories and school buses. British Columbia has recently undergone complete reorganization into larger units.

**Teacher Supply.**—The shortage of teachers, which became acute during the later war years, is still a major problem. Figures for 1946 show a return to teaching of about 2,000 of the 5,000 men who left the profession



*Elementary school pupils learn the use of the jig-saw in a wood-working class.*

during the war years. But the number of teachers without the minimum professional qualifications normally demanded increased in 1946 to more than 5,000 (or 1 in 10) in eight of the provinces (Quebec excepted).

In the matter of salaries an average increase of about \$100 yearly for each of the three preceding years was maintained in 1946, making an average salary of \$1,308 for all teachers, men and women, in the eight provinces. The changes of the war years substantially reduced the disparity between country and city salaries. In 1939 the teachers in one-room rural schools received an average salary of \$607, while city teachers received \$1,613; in 1946, rural teachers in the corresponding group were paid \$1,181 and city teachers \$1,926. But rural teachers continue to be a comparatively transient group, the majority moving from one school to another (or out of teaching altogether) every two years or less. The average tenure of city teachers by comparison is about ten years.

To aid the teachers who have returned after an absence from the profession and to help those who are doing their best with little knowledge and less preparation, the Departments of Education have tried various expedients. Special supervisors have been appointed. Inspectors and superintendents have been requested to stress supervision. Institutes are held, library books are made available, and permit teachers have been encouraged to take summer-school training or to enter Normal Schools.

Exchange of teachers is being carried out under an interprovincial committee of the Canadian Education Association. For the year 1947-48 about 40 exchanges were arranged between provinces, 64 between Canada and

the United Kingdom, and 4 between Canada and the United States. The Canada-United States Committee on Education, set up in 1944, has assisted or encouraged the operation of international workshops for teachers, exchange of teachers, lecturers, students, correspondence, and educational films and broadcasts. It has attempted to discover what Canadian students learn of United States history and what United States students learn of Canadian history. Its report shows that, with few exceptions, United States writers of history texts have not felt obliged to deal in any significant way with the history of Canada. Canadian text-books devote more space to United States history, but fail to deal adequately with Canadian-United States relations.

**Health and Education.**—The results of physical examinations necessary to obtain men for the Armed Forces drew attention to the substantial percentage of Canadian youth who could not meet the required standards for mental or physical health. Attention has consequently been focused increasingly on physical education and mental hygiene in the schools.

The Canadian Education Association and Canadian Public Health Association, with financial support from the Canadian Life Insurance Officers Association, have set up a National Committee for School Health Research. The Minister of Health and the Minister of Education for each province have appointed a Provincial Committee for School Health Research. Preliminary surveys have revealed unsatisfactory conditions in a large proportion of the rural schools.

The use of health-teaching aids varies greatly from school to school and leaves considerable room for improvement. Perhaps the organizing of Junior Red Cross Branches has been the greatest single factor in the encouragement of healthful living habits and interest in health services. The St. John Ambulance Association has also promoted health teaching.

**Education of Exceptional Children.**—The meeting of the International Council for Exceptional Children was held at Ottawa in 1947. This has added impetus to the work of providing services for those children who are not able to benefit fully from the usual classroom instruction, the deaf, blind, crippled, or otherwise handicapped, mentally retarded and mentally bright.



Pupils in a technical high school receiving their first lesson on connecting up stators of alternating current motors.

In Canada there are eight schools for the deaf in addition to a number of special classes in the larger cities. Some 1,171 pupils were enrolled in the schools for the deaf in 1944, while several hundred others benefited from similar instruction in special classes. In the schools for the deaf, pupils may learn to enjoy music, dance, play games, become skilled workers, become socially minded and in every way be prepared to take their place in the outside world. The correction of speech defects is emphasized in many Canadian Normal Schools, and specially prepared teachers conduct speech-correction classes for those who stutter, lisp, or have other impediments.

Those who have imperfect vision or who are totally blind provide an equal challenge to educators. The provinces have established six residential schools where some 500 pupils learn Braille, participate in regular school classes, learn trades, and become socially competent. After long diligent practice, many gifted blind pupils attain proficiency in music and piano-tuning, but the majority learn home economics, weaving, basketry, woodwork, broom-making and allied trades. Supplementing these schools is a number of sight-saving classes for pupils with partial vision, both in the schools for the blind and in some city public schools.

Handicraft and other opportunity classes are provided for students who are not suited to the usual academic courses. While it is often assumed that the bright are capable of looking after themselves, a number of classes for gifted children have been in existence for ten or more years in Canada.

Classes are also established for pupils of normal mentality who are crippled, or confined in hospitals or sanatoria. Institutional classes are organized for children in shelters, orphanages, etc. Home instruction classes are undertaken by visiting teachers for pupils who are confined to their homes for periods up to three months and orthopaedic classes for crippled or otherwise disabled children. Others are held for custodial cases of delinquents in reform and industrial schools.

Correspondence courses are now available in all provinces which supplement formal education in regularly organized classes. They were first introduced to provide instruction for children living in rural districts who were qualified but unable to enter high school. Later they were extended for pupils in elementary grades. Recently the number in use has increased greatly. Unqualified or partially qualified teachers use them as lesson helps, or the pupils follow them and get what assistance they can from a supervisor where no teacher is available.

**Adult Education.**—More than 96 p.c. of adult Canadians are literate, in the sense of being able to read and write. But there has been increasing recognition in the past few years that mere literacy is not enough, that there must be provision for citizenship education in adult years, and several Provincial Governments have recently established adult education agencies. Some of these operate as a branch of the Department of Education, others as independent boards financed by public money. In other provinces, inquiries have been proceeding with a view to comparable developments. The movement is assisted in all provinces by the services of the Canadian Association for Adult Education.

**Higher Education.**—The academic year 1946-47 represents the peak year for enrolment of ex-service students. Some 40,000 veterans were registered



*A group of first-year university students in Arts hear a lecture on psychology.*

in special courses and the regular sessions of the universities. Applications for training had to be made within 15 months of the date of discharge. This focalized the entrance date of a large majority of trainees within the period 1946-47. With the exception of a few authorized deferments, it is estimated that more than 95 p.c. of the candidates who applied for education benefits had been accommodated in various schools and colleges by 1947.

The humanities and social sciences, after experiencing a considerable slump during the years of the War, report higher registration. This is due in some measure to overcrowding in the schools of engineering, medicine and science, but in part, too, to the work of veterans' counsellors.

Subjects of study cognate to the problems of industrial relations record increased enrolment at both under-graduate and post-graduate levels. In 1947, the Canadian Social Science Research Council called a conference of university personnel concerned with teaching and research in these fields.

Instruction for the most part is centred in the Departments of Economics and Psychology, but a few of the universities have Departments or Institutes of Industrial Relations.

University teacher-training courses have regained and exceeded the pre-war levels of enrolment. Schools of nursing report capacity enrolment, and there has been some increase in the number of theological students.

Extensive school construction programs, accompanied by wide-scale campaigns for increased capital funds and larger government grants, are under way. It is estimated that at least \$30,000,000 will be required for essential building during the next ten years. A major part of this sum is for medical and science buildings. Some \$10,000,000 is to be spent for new library buildings or extensions, and a substantial sum for recreational and cultural facilities.

### *Summary Statistics of Education, 1945*

Type of School or Course	Institutions	Pupils	Teachers	Expenditure
	No.	No.	No.	\$
Provincially Controlled Schools—				
Ordinary and technical day schools.....	31,644	1,997,883	78,167	
Evening schools.....	400	68,238	—	
Correspondence courses.....	9	34,292	—	160,192,284
Special schools.....	21	4,811	464	
Normal schools.....	85	7,952	911	
Privately Controlled Schools—				
Ordinary day schools.....	784	101,122	5,748	
Business training schools.....	173	29,478	773	7,731,000
Dominion Indian Schools.....	337	16,438	415	2,155,611
Universities and Colleges—				
Preparatory courses.....	56	25,059	1,652	
Courses of university standard.....	160	59,114	6,078	24,900,000
Other courses at university.....	22	26,719	—	
<b>Totals.....</b>	<b>33,691</b>	<b>2,371,106</b>	<b>94,208</b>	<b>194,978,895</b>

<sup>1</sup> Affiliated institutions additional to classical and junior colleges included under institutions of university level.

### *Science and Research*

The war years demonstrated in the most forceful manner the importance of scientific research in the life of the modern nation, its necessity in fact for survival. The principal lesson to be learned from these and earlier years has been expressed by one writer, Professor J. B. Brebner, as follows: "Canada needs to detect, train, encourage, and retain every scholar she can find, for they will constitute the principal group who will keep Canada up with a rapidly changing world, who will bring Canadian brains and experience to bear on Canadian problems, and who will pass on to youth and to the nation at large the vital tradition from the past".

There has been considerable evidence of desire to apply the lesson in the past two years. From the employer's standpoint the action of the Federal Government in establishing in 1946 a Royal Commission on Administrative Classifications in the Public Service may be cited. To attack the problem from the side of training, the National Conference of Canadian Universities established a Committee on Post-Graduate Training in 1945. In June, 1946, the Bureau of Technical Personnel in the Department of Labour launched

an inquiry, on instructions from a Committee of the Cabinet and with the assistance of an Inter-departmental Advisory Committee, on requirements throughout Canada for professionally trained persons in the next five years.

The field of scientific research in Canada is exceedingly broad. Certain Federal and Provincial Government Departments, as well as many private industrial concerns, maintain trained permanent scientific staffs for investigation and research in their own fields. The universities have shown great initiative in research, but with the limited facilities at their disposal the task of carrying their discoveries to a conclusion is not always easy. However, Government and industrial laboratories are often able to pick up where the universities leave off. A special field of research is also covered by such institutions as the Ontario Research Foundation, the Banting Research Foundation and the Rockefeller Foundation.

*The 'Shopmobile' carries machine-shop facilities and instruction to rural schools in Nova Scotia. Each unit accommodates twelve pupils at one time and each class receives half a day's instruction per week during the school year.*



**The National Research Council.**—The National Research Council, founded in 1916, to provide a central organization for the conduct of research on problems of national scientific interest, has grown steadily. In November, 1947, the staff comprised over 2,300 persons, half of them scientists, and laboratories included the main building at Ottawa (Physics, Chemistry and Applied Biology), Aeronautical and Hydrodynamic Laboratories on the Montreal Road, the Atomic Energy Project at Chalk River, and the Prairie Regional Laboratory at Saskatoon. A Maritime Regional Laboratory is to be established at Halifax.

The Division of Medical Research, continuing activities organized during the War, is sponsoring fundamental medical research through grants and fellowships in Canadian medical schools. The Division of Building Research is working closely with the Central Mortgage and Housing Corporation in a comprehensive program of investigations designed to improve housing and to promote the knowledge and best use of building materials. To serve the smaller industries in the provision of technical advice on materials and processes, a Division of Information Services has been created in which the work of the Research and Development Branch of the Department of Reconstruction and Supply, including their field staff of some fifty district representatives, has now been merged.

Direction of the Council's activities is carried on by the President, two Vice-Presidents and seventeen other members of the National Research Council. Ministerial responsibility for the Council's work is vested in the Committee of the Privy Council on Scientific and Industrial Research, of which the Minister of Reconstruction and Supply is Chairman.

Encouragement of scientific research on a national basis has been one of the continuing functions of the National Research Council of Canada. From its inception the Council has maintained a system of post-graduate scholarships for the assistance of brilliant students who have shown promise of research ability. These scholarships have also provided a measure of aid for the development in Canada of trained scientific personnel to meet the academic and industrial needs of the nation in the prosecution of fundamental and applied research. More than 1,800 graduate research workers have been trained by this means.

A further measure of assistance has been through financial grants-in-aid to heads of science departments in Canadian universities, who have been enabled thereby to provide facilities for research that holders of post-graduate scholarships and other advanced students could do in various fields.

Co-operation of the National Research Council with Canadian industrialists has led to the development of new industries for the production of essential metals and the improvement of processes in existing plants. Close and satisfactory relationships thus established have created a valuable liaison between industry and science.

**The Social Sciences and Humanities.**—The Social Science Research Council was created in 1940 to improve the liaison among those doing research in the several fields and to promote research in various ways. Such associations as the Canadian Agricultural Economics Society, the Canadian Committee of the International Geographical Union, the Canadian Institute of International Affairs, the Canadian Education Association, the Canadian



*Atomic energy development, Chalk River, Ont. The President of the National Research Council has described this development as "the most heart-warming" of Canadian scientific achievements since 1939. It is the biggest thing Canada has done alone and has "set the seal of manhood on Canadian science".*

Psychological Society and the Royal Society of Canada endorsed the project. The Council in its last report stated that its activities had been marked by an increasing concern with the major problems of the academic world, particularly in the universities where research has been hampered by the heavier teaching loads necessarily imposed on professors by the post-war demand for university training. Then, too, it has become very difficult to accommodate all those students who wish to take advanced courses. A co-ordinated effort is being made with the Canadian Universities Conference and the Humanities Research Council to deal with these problems. An expansion of graduate work in institutions across Canada is anticipated, an expansion that should increase the possibilities for effective research in such subjects as political science, sociology and anthropology.

The Humanities Research Council was organized in 1942 to strengthen the position of the humanities in higher education. Its constitution envisages an *ad hoc* body of active research scholars, representative of as many disciplines and universities as possible. There are now sixteen members drawn from the staffs of fifteen universities who have, with aid from the Rockefeller Foundation, directed an extensive survey of the conditions of the humanities in Canada. Its report, which deals with the position of the humanities in secondary education and at various levels in the universities, indicates a need for concerted effort on the part of Canadian academic institutions if the traditional standards of culture are not to be impaired.

## *Public Libraries*

Public libraries in Canada are primarily urban institutions. In cities of over 10,000 population about 92 p.c. of the people have some measure of library service; in smaller urban centres the proportion is 42 p.c. While only 5 p.c. of the rural population is at present provided with library service, the recent interest being shown in rural library service provided by regional and travelling libraries promises to alter this situation in the near future.

In the larger centres the main libraries are conducted as municipal institutions usually by a board appointed by the city or town council. The more numerous smaller libraries are conducted by voluntary associations. Small provincial grants are given to libraries of both types in most of the provinces, but not in New Brunswick, Quebec and Manitoba. There is a provincial centre for the direction and encouragement of public-library development in the Public Libraries Branch of the Ontario Department of Education, and in the Public Library Commission of British Columbia. This seems to be one of the most effective means of assisting the library movement; public-library service is more complete in Ontario and British Columbia than in the other provinces. Prince Edward Island now possesses a centre in the headquarters of its provincial library, and Nova Scotia in its recently founded Regional Libraries Commission. The Province of Saskatchewan has undertaken extensive reorganization of the libraries and a program of regional libraries is in process of development.

The circulation of books in Canada is confined to about 40 p.c. of the population and averages about five books per person per year. It is estimated that about one-quarter of the patrons of libraries are children, which is approximately the same proportion that school enrolment bears to the total population of the country.

An analysis of the circulation of non-fiction books indicates that, among communities of different size, persons living in the larger communities read more philosophy, and those living in the smaller communities more religion. Sociology and the arts are studied to a greater extent in the larger communities (except where there are regional libraries), while the smaller centres are high in literature, history and travel. Biography is popular everywhere; next to travel books, it is on the whole the most popular class of non-fiction.

## *Creative Arts*

**The National Gallery.**—The work of the National Gallery has many facets. It plays its part in adult education as well as co-operating with primary, secondary and college systems of instruction.

Over a period of more than 40 years, it has been assembling a permanent collection representative of what is best in both ancient and modern styles. The collection is useful for the improvement of arts and industrial design.

The Gallery is not merely a repository. It assembles and circulates exhibitions, no less than fifteen being on tour at one time. Art galleries, schools, community centres, and other responsible organizations draw upon it as the source of many of their offerings to the public. Loans to small and new museums are also made.

Written lectures, illustrated by lantern slides, have been prepared for use in schools, colleges and local societies; reproductions of paintings with notes on appreciation have been made; there are classes for children at the Gallery itself and exhibitions of children's work are features of the Gallery's program. Public lectures are given at Ottawa and occasionally lecture tours are arranged in other parts of the country.

Twelve thousand students from  
10 centres of the United States  
and Canada gathered at  
Montreal in April, 1947, to  
participate in a three-  
day International Festi-  
val of School Music.





An artist and expert wood carver at work in a Nova Scotian crafts centre.

School broadcasts on Canadian art were inaugurated in 1945 in co-operation with the Canadian Broadcasting Corporation, and films dealing with Canadian painting have been made in collaboration with the National Film Board. Silk screen prints, made at the Gallery and distributed widely, have made some Canadian works of art known in many parts of the world and these, together with other reproductions, are in considerable demand in Canadian schools.

The Gallery also helped to organize the magazine *Canadian Art*, an important channel for publicizing the work and methods of Canadian artists.

In all these ways the National Gallery has fulfilled the terms of its charter in caring for its collections and in "the encouragement and cultivation of . . . artistic taste and Canadian public interest in the fine arts, the promotion of the interests generally of art in Canada".

**The Canadian Arts Council.**—The Canadian Arts Council was established in December, 1945, following briefs to the Special Committee of the House of Commons on Reconstruction and Re-establishment by constituent associations. Among other things the briefs pictured a Canadian society in which the arts would become more closely integrated with the life of the Canadian people.

It was proposed to establish "a government body to promote a national cultural program and provide music, drama, art and film services for all our people" in order to remedy a situation in which the people do not benefit from the arts, and whereby the artists function in such a narrow field "that they are forced into activities unsuited to their talents". Other proposals considered improvement in industrial design, housing and town planning.

The following list of the sixteen bodies constituting the Council gives some idea of its breadth of interest:—

The Royal Canadian Academy of Arts  
The Royal Architectural Institute of Canada  
The Sculptors' Society of Canada  
The Canadian Society of Painters in Water Colour  
The Canadian Society of Painter-Etchers and Engravers  
The Canadian Group of Painters  
The Canadian Society of Graphic Arts  
The Federation of Canadian Artists  
The Canadian Authors' Association  
Le Societe des Ecrivains Canadiens  
The Music Committee  
The Canadian Society of Landscape Architects and Townplanners  
The Dominion Drama Festival  
The Canadian Handicrafts Guild  
The Canadian Guild of Potters  
The Arts and Letters Club.

### *Mass Media of Communication*

**Radio.**—There are in Canada about three million radio receiving sets, or about one for every four persons in the population. Private receiving licences number about 1,800,000, many of these covering more than one set.

*The Canadian Broadcasting Corporation.*—A broadcasting system may be a powerful national instrument for education in the broadest sense. In the department of public information and adult education it utilizes such forms as talks, commentaries, interviews, forum and discussion programs, either in documentary or semi-dramatized educational form. Subject-matter may range from amusing yarns to discussions on world government, from modern art and Canadian literature to home economics and popular science. Broadcasts are in French or English and are intended for various groups of listeners. The CBC also carries international exchange programs and a number of commercial programs. The CBC has two national networks and provides coverage for most of Canada. Several stations have been operating with increased voltage during the past few years.

The operations of the CBC are given in more detail at pp. 161-163.

*The producer-director of the CBC drama series "Stage 48" speaks to the cast from the control room during rehearsal.*



**Motion Pictures.**—There were 1,477 motion picture theatres operating in Canada in 1946 with box office receipts (including amusement taxes) amounting to \$74,941,966 for the year, or \$6·15 per capita of the population. The average admission price was 32·9 cents, allowing for 19 shows per capita.

*The National Film Board.*—The duties of the Board, which consists of two Cabinet Ministers, three members of the Civil or Defence Services and three members outside the Civil Service, are: to advise on Government film activities, to co-ordinate National and Departmental film programs, to direct the distribution of Government films in Canada and abroad, and to co-ordinate and develop information service to supplement this distribution. Its primary duty is to present the Canadian scene, at home and abroad, in documentary films, still photographs and related graphic materials. Through these media, Canadians will be encouraged to learn more of the work and ways of their fellow citizens, and of Canada's relationship to other nations. In Canada the Board's films are distributed through 325 theatres, where they are seen by more than 2,000,000 people each month, and through 160 rural circuits, 155 film libraries and 200 community film councils to a monthly audience exceeding 5,000,000. Outside Canada, films are distributed through the Board's offices and through Canadian trade and diplomatic representatives and other agencies to 40 countries, in six different languages.

During the year ended Mar. 31, 1947, the National Film Board completed 214 film productions. The post-war emphasis is on educational and cultural films, based on domestic subjects.

**The Press.**—There are nearly 100 daily newspapers published in Canada, counting morning and evening editions separately. The circulation of English-language dailies is reported to be approximately 2,400,000 and French-language about 550,000. There are also 4 Chinese and 2 Yiddish dailies published in Canada.

French daily newspapers have, as would be expected, a wide circulation in the Province of Quebec and some of the larger of these papers have been established in the Province for over 60 years. Ten of the 11 French-language papers are published in that Province, the other being in the adjoining Province of Ontario. Over 93 p.c. of the total circulation of the English and French dailies is in the urban centres of 20,000 population or over.

Weekly newspapers have a somewhat wider circulation; only 61 p.c. of the stated circulation of weekly English-language newspapers is in cities of 20,000 population or over and about 77 p.c. of the French-language weeklies.

Foreign-language newspapers are more generally published as weeklies or semi-weeklies. In 1946 these newspapers had a stated circulation of about 200,000, Ukrainian papers accounting for 65,000, German 32,000, Yiddish 28,000 and Polish 15,000.

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# CANADA

(Exclusive of northern regions)

Scale of Miles

100 50 0 150 200 300 400

REFERENCE

Geographic Control

Principal Capital

Major Highways

Trans-Canadian Air Line

Other Major Highways

Other and Connecting U.S. Roads



# DISTANCES BETWEEN PRINCIPAL POINTS IN CANADA.\*

Note.—Generally, the distances given are the shortest by railway.

A knowledge of distances in miles between principal points constitutes very useful information in these days of wide travel, but when an attempt is made to compile such data difficulties are at once encountered. Railway distances in the logical choice, even though road distances are of increasing interest to a vast body of travellers by automobile and are a useful alternative. Railway distances represent usually the shortest practicable land distance between two points and even today the bulk of freight and passenger traffic is by rail. Again distances by air—sometimes called “air-line” distances—are only used in practice to those who travel by air. This is a growing phase of transportation, of course, but has not yet assumed such proportions that its tabulation should dominate the more usual one. Again, it is not a difficult matter to estimate air-line distances from a map or to convert scale, whereas the ordinary reader is not able to obtain air-line distances easily.

Even though it be decided to adopt railway distances as most useful, it is necessary to decide whether the most travelled route between two places is the shortest railway route should govern. In the tables given below, the distances between points are the shortest distances by railroads, and not necessarily the most travelled routes or the routes by which mass trains travel. They are computed generally from the railway time tables. The main table includes the capital of each province and some of the main shipping points chosen principally, but not altogether, by population; the subsidiary tables include distances of local importance. Included in the distances from Charlottetown is the distance from Borden to Cape Tormentine, over which the trains are transported by ferry, similarly, the train ferry distance between Mulgrave and Point Tupper is included in the distance from Halifax to Sydney. In the main table all the distances from Victoria include the distance travelled by boat from Victoria to Vancouver. However, wherever possible, railway distances only are used. In certain distances from Three Rivers and from Quebec it is possible, by the use of ferries, to travel by shorter routes than those given in the tables, the rail route only being taken in these cases.

Where boat routes are given, the best approximation of the distance travelled is used.

The air-line distances used are not necessarily the straight-line distances between points, but are the distances over the routes usually travelled by aeroplanes in good weather.

Place.	Halifax	Montreal	Charlottetown	Saint John	Fredonia	Ottawa	Rivière-du-Loup	Three Rivers	Kingston	Toronto	Brampton	London	Windsor	Port William	Winnipeg	Dorion	Brockville	Brantford	Vancouver	Victoria	Prince Rupert
	Miles	Miles					Miles														
Halifax	0	189	230	278	292	662	747	646	740	888	920	1081	1120	1194	1176	2012	2149	2935	2381	2475	2560
Moncton	159	0	126	166	184	473	538	557	621	695	711	892	905	1017	1117	1377	1497	2295	1614	1580	1549
Charlottetown	129	176	0	218	236	606	588	583	673	725	749	892	905	1017	1117	1377	1497	2295	1614	1580	1549
Saint John	282	104	0	218	236	606	588	583	673	725	749	892	905	1017	1117	1377	1497	2295	1614	1580	1549
Fredonia	292	104	0	67	0	401	454	553	491	565	627	788	837	963	1013	1443	1587	2313	1755	2316	2393
Quebec	663	473	900	466	405	0	389	227	288	142	503	547	618	728	1019	1446	2146	1864	2176	2183	2308
Montreal	747	558	684	616	454	169	0	393	45	118	173	154	154	154	154	154	154	154	154	154	154
Shubenacadie	676	531	543	573	521	127	127	0	424	424	424	424	424	424	424	424	424	424	424	424	424
Three Rivers	540	331	331	331	331	481	481	481	195	195	206	268	479	468	549	651	1004	1448	1597	1432	2274
Orillia	658	649	595	587	583	289	111	211	206	0	132	247	256	362	472	539	1249	1497	2229	2096	2369
Kingsville	910	111	857	567	572	173	278	268	112	0	165	200	270	320	320	320	320	320	2096	2154	2359
Toronto	1012	892	1018	898	898	232	232	232	79	79	94	125	125	125	125	125	125	125	125	125	125
Hamilton	1120	949	1049	849	849	213	514	474	474	474	790	380	19	0	195	850	1249	1379	1228	1095	1207
London	1195	1001	1143	523	965	845	449	559	544	562	376	115	115	0	195	1232	1455	2300	1214	2114	2000
Windsor	1296	1112	1262	1035	1015	778	595	690	694	672	365	212	190	110	110	323	433	1259	1287	1202	1289
Fort William	1716	1527	1653	1463	1463	1176	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
Winnipeg	2049	1767	1767	1527	1527	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
Rosetown	2445	1852	2284	1910	1887	1484	1484	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587	1587
Churchill	2691	1803	2929	2753	2753	2129	2129	2129	2129	2129	2129	2129	2129	2129	2129	2129	2129	2129	2129	2129	2129
Regina	2367	2051	2305	2118	2104	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804
Saskatoon	2397	2051	2305	2118	2104	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804
Calgary	2583	2643	2712	2598	2575	2575	2575	2575	2575	2575	2575	2575	2575	2575	2575	2575	2575	2575	2575	2575	2575
Edmonton	2481	2624	2783	2337	2337	2334	2334	2334	2334	2334	2334	2334	2334	2334	2334	2334	2334	2334	2334	2334	2334
Vancouver	3475	3260	3413	3236	3216	2884	2884	2884	2884	2884	2884	2884	2884	2884	2884	2884	2884	2884	2884	2884	2884
Victoria	3580	3271	3414	3244	3244	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900
Prince Rupert	3769	3389	3707	3323	3323	3049	3049	3049	3049	3049	3049	3049	3049	3049	3049	3049	3049	3049	3049	3049	3049
From Halifax—																					
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St. John's	285																				
Glace Bay	204																				
New Glasgow	107																				
From Saint John—																					
to Edmundston	236																				
Campbellton	276																				
St. Stephen	83																				
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to Shawinigan Falls	89																				
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Nomadic	342																				
Massicot	666																				
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From Prince Edward—																					
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\* Prepared under the direction of F. H. Piers, Surveyor General and Chief, Hydrographic Service, Department of Mines and Resources, Ottawa.



Canada  
1949

COAST  
OF  
LABRADOR

NEWFOUNDLAND

ST. JOHNS



## A Message from the Prime Minister of Canada

40



THE people of Newfoundland, by majority vote in a national referendum on July 22, 1948, decided to enter Confederation. An official delegation from Newfoundland came to Ottawa in October to work out the precise terms of union with the Canadian Government. The terms of union were signed in Ottawa on December 11 by the authorized representatives of Canada and Newfoundland. The terms of union have to be approved by the Canadian Parliament and the Commission of Government of Newfoundland, and confirmed by the Parliament of the United Kingdom. The date of union on which we live out our rights is March 31, 1949.

The entry of Newfoundland as the tenth province of Canada will complete Confederation. Representatives of Newfoundland took part in the great conference in Quebec in 1864, when the constitutional foundations of the new nation were laid, and the door was expressly left open for the entry of Newfoundland by the terms of the British North America Act.

The people of Canada will, I am sure, welcome the new partner in Confederation. The peoples of Newfoundland and Canada are in many ways already one people. For the most part they have sprung from kindred stock; they have behind them the same great traditions of liberty and democracy; of respect for the rights of individuals and of minorities; and observance of the rule of law. Moreover, Canada and Newfoundland have co-operated closely in their common defence in war and lived side by side as friendly neighbours in peace. Together, we may look forward to building an even greater nation, to preserving more effectively the ideals and institutions which we both cherish, and to providing for our children a greater measure of welfare and happiness.

*Louis St. Laurent*

Prime Minister.

The Year is 1497

JOHN AND SEBASTIAN CABOT  
Leave Bristol, England, on a  
voyage of discovery to the  
New World. —→



St. John's Harbour,  
Newfoundland, 1948.

—Courtesy, N.F.B.

This Reproduction of the Cabot Painting, by Harold Goodridge, a Newfoundland artist, that hangs in Government House, St. John's, Newfoundland, depicts John Cabot on the eve of his departure from Bristol in 1497. The central figure to the left of the Royal Standard is King Henry VII of England, under whose Royal Commission the Cabot discoveries were made, surrounded by high dignitaries of Church and State.

The picture is the property of the Newfoundland Historical Society and has been reproduced in this Handbook by permission of that Society.





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# *Canada 1949*

'THE OFFICIAL HANDBOOK OF PRESENT  
CONDITIONS AND RECENT PROGRESS

---

PUBLISHED BY THE AUTHORITY OF  
THE RIGHT HONOURABLE C. D. HOWE, M.P.  
MINISTER OF TRADE AND COMMERCE

PREPARED BY THE  
DOMINION BUREAU OF STATISTICS  
DEPARTMENT OF TRADE AND COMMERCE, OTTAWA

Price 25 Cents

## The Year is 1497

JOHN AND SEBASTIAN CABOT leave Bristol, England, on a voyage of discovery to the New World. →

St. John's Harbour,  
Newfoundland, 1948.

—Courtesy, N.F.B.



This Reproduction of the Cabot Painting, by Harold Goodridge, a Newfoundland, depicts John Cabot on the eve of his departure from Bristol in 1497. The central figure to the left of the Royal Standard is King Henry VII of England, under whose Royal Commission the Cabot discoveries were made, surrounded by high dignitaries of Church and State.

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Courtesy, Dr. Burke, President, Newfoundland Historical Society  
Harold Goodridge, Esq., Artist  
and the Department of External Affairs.  
Photo by Ruggles, St. John's, Newfoundland.



OTTAWA  
EDMOND CLOUTIER, C.M.G., B.A., L.Ph.  
KING'S PRINTER AND CONTROLLER OF STATIONERY  
1949

## Foreword

THE "Canada" Handbook Series was initiated nineteen years ago to supplement the field of the *Canada Year Book* by offering to teachers and pupils in the public schools and to Canadian citizens generally a brief and attractive record of current economic conditions at a price within the reach of all. The *Year Book* is primarily a detailed reference work and is not designed to meet the need for a popular publication medium of this kind.

The growing popularity of the Handbook and the numerous special editions and reprints that have been required, by Government Departments and outside sources to meet their special needs, attest to the soundness of the original plan and to its value.

The past two decades have seen expansion of the national economy in every direction and, since a considerable proportion of space in the Handbook is allocated to illustrations, the editorial task of giving a well-balanced presentation in a publication of this size and at low cost becomes more difficult each year. Currently many thousands of copies are being distributed abroad through our Diplomatic and Trade Commissioner Services and it is desirable for this reason alone that the Canadian economy should be explained fairly completely and that appropriate feature material should be included.

This year the frontispiece marks the recent decision of Newfoundland to enter the Canadian Confederation, an event that it is expected will be consummated in March, 1949.

A handwritten signature in black ink, appearing to read "C.D. Howe".

*Minister of Trade and Commerce*

OTTAWA, January 1, 1949



## Prefatory Note

**T**HIS Handbook has been prepared and edited in the Year Book Division of the Dominion Bureau of Statistics from material that has, in the main, been obtained from the different Divisions of the Bureau. In certain special fields information has been kindly contributed by other branches of the Government Service.

The Handbook is planned to give a balanced picture of the general economic and social structure of Canada, the weight of emphasis being placed from year to year on those aspects that are currently of most importance, since there is not space to deal adequately with all. Chapter material has been brought up to date as at the time of going to press. Special articles deal with "Canadian Petroleum Production and Outlook"; "Citizenship and Canadian Unity"; and "Canada's Interest in the Alaskan Fur Seal".

*H. Marshall*

*Dominion Statistician*

# Acknowledgments

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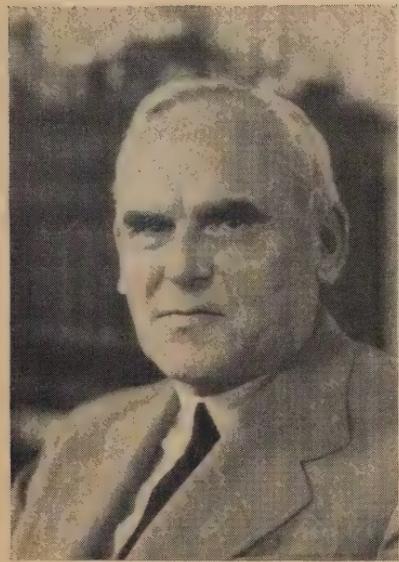
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Canadian asbestos going aboard S.S. "Manchester Guardian", bound for the United Kingdom. Most of Canada's production of asbestos is exported. For the first ten months of 1948 588,507 tons were produced as compared with 538,689 tons in the corresponding period of 1947; exports during the 1948 period totalled 563,786 tons, up from 521,145 tons exported in the similar 1947 period.

# Introduction

## *Economic Conditions at the Close of 1948*



**The Right Honourable C. D. Howe, M.P.  
Minister of Trade and Commerce**

been entirely restored. The main obstacle which faces Canada's trading operations with most countries is still the lack of Canadian dollars or convertible exchange to pay for needed goods from this country. A real effort was made in 1948 toward closing the undesirable gap in the trade between Canada and the rest of the world. Owing to the fact that the favourable balance with Britain was decidedly excessive under conditions of transition, a part of the remedy was a reduction of exports from this country. Imports from Britain in the first nine months of 1948 rose more than \$84,200,000 while domestic exports receded \$26,500,000 over the same period of 1947. Taking re-exports into consideration, the active balance dropped by over \$111,000,000. The adverse balance with the United States, including the net exports of gold, dropped from \$646,000,000 in the first nine months of 1947 to about \$178,000,000.

The teamwork displayed between British exporters and the two Governments to facilitate the flow of goods to Canada is most impressive. British producers and merchants have exerted themselves to hasten deliveries and make their goods more marketable here, and shipments to Canadian importers

**T**HE year 1948 was one of the most prosperous in Canada's history. Resources, both human and material, were more fully occupied in the production of goods and services to meet the every-day needs of people at home and abroad than ever before. The employment of the labour force approached the upper limit, placing a handicap upon further advance in the volume of production.

### *Foreign Trade*

The lack of balance in Canada's international trade—the main source of weakness one year ago—has now been partially adjusted. A marked improvement has taken place but a sound basis for world trade has not

have been greatly accelerated by the encouragement of the British Government. The issue of import permits for British goods has been liberalized as a contribution toward the solution of exchange difficulties. Nevertheless, despite this general improvement, Canada's overseas export position had entered a more critical phase at the close of 1948. Owing to the tight exchange position, British policy was directed to limiting still further her purchases from Canada for important basic commodities. But there is nothing in the present movement that does not confirm the rule that the sale of goods in the British market has been one of the most important contributions to Canadian prosperity.

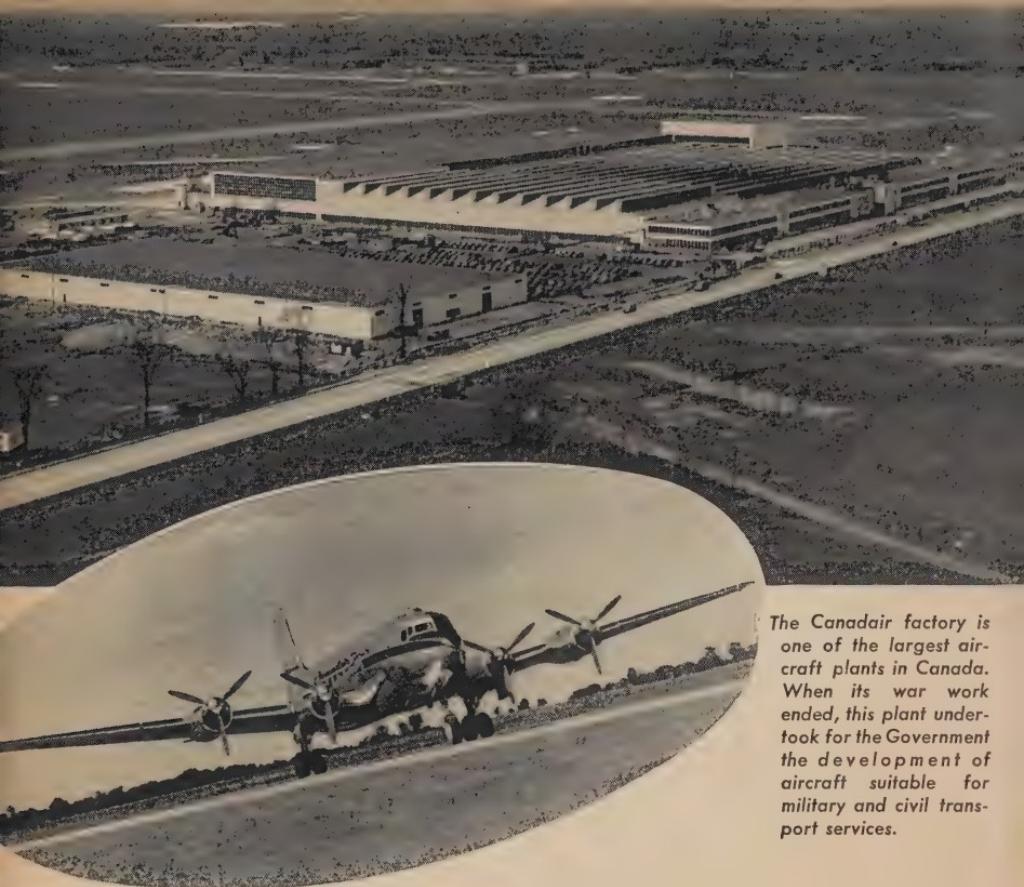
The desirability of maintaining the greatest possible trade with the United States must also be stressed. The steady decline in Canada's holdings of United States dollars in 1947 arose from the inability of Canada's customers abroad to pay for their purchases with gold or other readily negotiable currency. The steps taken late in that year to alleviate the stringency, by restricting imports and facilitating the movement of Canadian goods across the Border, resulted in a 10 p.c. decline in imports and a 40 p.c. increase in exports. These restrictions will be lifted on Jan. 1, 1949, in regard to all foodstuffs excepting processed fruits and vegetables, and certain items of domestic equipment.

United States interest in the Canadian economy will tend to increase, due in part to their greater dependence on the raw materials and industrial resources of outside countries. The investment of United States citizens in Canada amounts to about \$5,000,000,000, four times as much as in any other country and equal to the total United States holdings in Europe. New direct and indirect investments are being made by private corporations and individuals on a larger scale than before the War but confidence in Canadian securities will continue in that capital market only if sufficient reserves of gold and United States exchange are accumulated.

A far-reaching change in world trade patterns is in process. To fit into the altered situation Canada will have to make adjustments, particularly in finding new outlets for export products. For the foreseeable future, Britain will continue to provide Canada with a limited though valuable and, it is to be hoped, continuing market for staple agricultural products and the United States, by means of the purchases for Europe's benefit, will help not only to stabilize the Canadian economy but progressively to alleviate the dollar stringency. The existence of unprecedented deficits in the international transactions of most countries is characteristic of the post-war world, but a definite betterment in Canada's position was achieved during 1948.

### *Capital Expansion*

The general level of prosperity was due largely to expansion in capital expenditures which were greater than in any other year. Expenditure on plant and equipment is a strategic factor in the national economy. As a part of the money spent in this connection is handed on to employees who then disburse a large proportion for the necessities of life, the generating influence cannot be measured by the original expenditure alone. Such expenditures are estimated at more than \$4,250,000,000 for 1948. Prices and wage rates had a bearing on the amount of this expenditure and the outlay reflected, to a certain extent, the increase in cost compared with the preceding year. The physical amount of plant and equipment built, however,



The Canadair factory is one of the largest aircraft plants in Canada. When its war work ended, this plant undertook for the Government the development of aircraft suitable for military and civil transport services.

A fleet of 22 Canadair Fours, manufactured at Montreal, will soon be in service on Britain's global air system and another fleet of four on the Canadian Pacific Airlines Pacific service from Canada to Australia and the Far East. This aircraft is now standard TCA equipment.



also showed expansion. Construction companies found it easier to obtain materials and labour, but the Canadian and world-wide shortage of steel affected many forms of new investment.

Housing expenditures were considerably greater than in the preceding year allowing for the completion of 80,000 units. The housing shortage has been accumulating since the end of the major economic cycle in 1929 and during the war period, 1939-45, the construction of dwellings for civilian use was almost at a standstill. Production of certain building requirements increased greatly during the year but delayed deliveries in other lines were still a disconcerting influence.

The iron and steel industry occupies a strategic position, being the main influence in supplying producers equipment and durable goods of many descriptions. The output of steel and pig iron was from 8 to 9 p.c. greater in the first ten months of 1948 than in the same period of the preceding year. The increase of employment in the primary steel industry at nearly 11 p.c. suggests a slight recession in production per man-hour. Expenditures for machinery and equipment alone amounted to \$1,290,000,000. Household utilities and passenger cars are again flowing freely to the home market and the demand in these lines is still strong despite high prices.

The modernization and expansion of capital equipment during the past three years has greatly broadened the nation's potential for raising the standard of living above the present high levels. Immediate prospects are excellent as shown by the rise of 31 p.c. in contracts awarded during the first 11 months of 1948.

### *Production*

The value of production reached an all-time high during 1948 and volume was greater than in the preceding year. Developments of the year lessened somewhat the intensive world demand for goods, and consumers in the home market discovered that a considerable number of commodities were in ample supply to meet their needs.

**Agriculture.**—Farm income established a record, reflecting in part the generally higher prices. Favourable weather during the growing season resulted in a more bountiful harvest than in 1947 and there was a ready market both in Canada and abroad for practically the whole output at prices assuring an excellent return to Canadian farmers. The wheat crop at 393,000,000 bu. was about 56,000,000 bu. higher than in 1947. The 1948 crop and the carry-over as of July 31 was placed at about 469,000,000 bu. and the portion available for sale will be disposed of to better advantage than the 1947 crop, the British contract calling for 140,000,000 bu.

Live-stock feeds of most kinds were reasonably plentiful favouring a heavy production of dairy and meat products. The harvests of oats and barley were 28 p.c. and 9 p.c. higher, respectively, than in 1947 and the crop of most other grains was considerably heavier.

The production of cheese suffered because of the heavy domestic demand for other dairy products and the British contract was not entirely filled. Canadian per capita consumption of beef and pork has risen sharply in recent years. Export control of cattle and beef was lifted in the late summer, restoring the United States market after a lapse of six years. The 1949

*Boom of cedar logs  
at a British Columbia sawmill.*



British contract for 50,000,000 lb. of cheese at 30 cents per lb., exclusive of transportation charges, is unchanged from last year. The arrangement for bacon and pork is reduced by 35,000,000 lb. to 160,000,000 lb., the price remaining the same as in 1948. The reduction in the agreement for eggs from 74,000,000 doz. to 46,000,000 doz. may be offset by the partial removal of restrictions on exports to other markets, and at least a part of the price reduction may be absorbed by economies in operating and processing.

**Mining.**—Consumption of products from Canadian mines domestically and abroad has been marked by an upward long-term trend accompanied by an industrial growth that shows promise of continuing well into the future, since large areas are still rebuilding their economy following the destruction caused by the War. Rearmament, depending upon the scale of operations, threatens to impose a strain on the supply of metals and minerals.

Due to marked increases in the output and prices of most products of the mines, a considerable advance in the value of mineral production was achieved in the year under review.

The Yellowknife gold camp in the Northwest Territories has developed rapidly, affording an excellent example of how mineral development can open up outlying areas and pave the way for settlement. The Leduc and Lloydminster oil fields are contributing greatly toward the petroleum-product requirements of the Prairie Provinces. Additional mineral prospects include the titanium-bearing deposits of ilmenite in the Lake Allard area of Quebec, and the extensive undeveloped iron-ore deposits near the Quebec-Labrador boundary offer to foster the expansion of heavy industry on a widespread basis. No other industry has promoted such a degree of expansion in the north as has mining. The problems that mining engineers and oil men have faced and solved have been most perplexing and difficult, but they have opened the doors to an understanding of the extent of the resources that lie underground. Exploitation of these resources has scarcely

begun and much the greater part of mineral-bearing territory has not even been surveyed or examined.

**Manufacturing.**—The marked expansion in the production of manufactured goods has been outstanding during the period from 1938 to the present. The output was more than doubled during the year of maximum war production compared with any pre-war year. The only interruption in the upward movement during the latest ten years occurred in 1945 and 1946. The volume of production and the workers employed in manufacturing plants were at slightly higher levels in 1948 than in 1947. Industrial concerns, in large measure, were relieved during the later year of the great operating difficulties encountered during 1947 in the procurement of raw materials and components and the 1948 rate of production must be regarded with satisfaction in view of the urgency of consumer needs. The marked rise in the prices of manufactured goods in the past 20 months confirms the intensity of demand.

Manufacturing tends to promote the most efficient utilization of the nation's resources. Increasing manufacturing production linked to efficient operation will retard the upward trend in selling prices and can contribute toward solving the problem of the lack of balance in international trade.

**Employment.**—A most encouraging feature of the economic picture is the high level of employment. The labour force now exceeds 5,000,000 and the numbers of unemployed are reduced to very small proportions. Reports from Employment Offices indicate that employers are rather less willing than formerly to employ temporary help, with the result that there is a general decline in labour turnover. However, placements by the Employment Service continued active throughout 1948; for example, during September 16,700 persons per week received jobs. Registrations during the year were heavy among immigrants and new entrants to the labour force.

The position with respect to strikes and lockouts was substantially better, the time lost in the first ten months of 1948 having been 62 p.c. less than in the same period of 1947.

The paid workers were a larger proportion of the population in 1948 than at any other time since the inception of the statistics at the termination of the First World War. The proportion, at slightly more than 26 p.c. compared with 16.5 p.c. in 1933, indicates the more favourable conditions arising from the satisfactory utilization of human resources. Assuming that the productivity of labour has been approximately maintained, the real per capita output of Canada was greater in 1948 than at any other time in a quarter-century.

In the first ten months of 1948 Canadians received in salaries and wages a total of \$5,879,000,000 which is an increase of 15 p.c. over the same period of 1947. The average weekly rate at Nov. 1, 1948, in the eight main industrial groups was \$42.16 against \$37.79 on the same date of the previous year. The rate has been mounting steadily since before the War.

## Retail Trade

The outlay of consumers for goods and services is the largest component of the national expenditure. The total consumer outlay for 1947 was nearly

\$8,900,000,000 and available evidence points to a further increase in 1948. The gain in retail sales was 11 p.c. over the first nine months of 1947 but price increases affecting a wide range of commodities were a potent factor in the extent of the advance.

A closer balance between demand and supply was discernible in 1948. Consumer demand was checked by the persistent advance in prices at the retail level. Demand is now less urgent and more discriminating for semi-durable goods. High-priced merchandise sold less readily as the year progressed and some industries encountered growing difficulty in disposing of the output at the anticipated prices. Weaknesses may be expected to spread because of consumer resistance and the saturation of particular markets with surplus goods. There is still reason for concern about the danger of further increases in many lines particularly where domestic, defence and foreign demands overlap.

### Prices

As a counterpart of the prevalent prosperous conditions, commodity prices have advanced without important interruption since the termination of the War. The advance of the latest two years has been without precedent in Canadian price history; the wholesale index, rising 35 p.c. in 20 months, was only 3·1 p.c. less than the maximum reached shortly after the First World War.

*T.S.S. "Prince George" passing under Lions Gate Bridge, Vancouver, on June 10, 1948, on her maiden voyage to Skagway, Alaska. She was built on Canada's west coast and designed especially for service to Alaska via the famed Inside Passage of the North Pacific Coast.*



As a buyers' market is substituted for a sellers' in one sector after another, the general upward trend of prices will be curbed. Memories of previous price collapses and of depression have created a spirit of caution in the business community despite the prosperity of recent years. There never has been a prosperous period of substantial magnitude in which speculative buying has been kept within such narrow limits. The caution of consumers in making purchases of some lines in ample supply is a deterrent to further price advances in those commodities but, as regards major price changes, much depends on the movement of world prices, particularly those of the United States. Also the price levels will depend to a large extent on international relationships.

## Finance

**Dominion Expenditures.**—The grand total expenditure of the Federal Government was more than \$996,000,000 in the first seven months of the year ending Mar. 31, 1949, about 7 p.c. less than in the same period of the previous fiscal year. The surplus of nearly \$534,000,000 was larger than anticipated. However, increased expenditures in the early months of 1949 may have to be met, including the repayment of the refundable portion of income taxes and provision for defence plans with stockpiling of essential materials.

The post-war aim of fiscal policy has been a long-term counter-cycle program to ensure full employment of all the factors of production. The corner-stone of such a program is an adequate volume of permanent investment. During post-war years large increases in private investments and consumer expenditures have replaced the government spending of the war years as the main influence in the maintenance of a high income level. So long as the indicated policy continues it will entail greatly increased governmental expenditures during times of depression when private investment tapers off. These may be financed by taxation surpluses accumulated during prosperous years and thus the normal reaction to depressed economic conditions can be prevented or at least considerably modified. The plan assumes the abandonment of annual budget balancing in favour of an approximate balance over the period of a complete business cycle.

**Banking.**—The increase in the money supply of Canada has recently slackened its pace after advancing sharply from 1942 to 1946. The average for the first nine months of 1948 was less than 6 p.c. greater than in the same period of 1946. This limited advance in the means of payment has had a restraining influence on the price structure.

As the Canadian banking system makes a major contribution to national economic progress, it is a matter of satisfaction that the structure has been readjusted to meet the post-war requirements of business and industry. A marked increase has been shown in commercial lending while the proportion of the holdings of government securities to assets has declined. In the three years 1946-48 the amount of commercial loans has risen by 54 p.c. to more than \$2,011,000,000 including loans to business, industries and primary activities, while the ratio of holdings of government securities to assets has dropped from 50 p.c. to 40 p.c. This indicates the flexible realignment of the major elements of banking resources to the rapidly changing requirements of the chief sectors of the national economy.



Wheat harvesting in Western Canada.



Imperial Well Leduc Number 3 blowing into production.

# Canadian Petroleum Production and Outlook\*

## Canadian Petroleum in Relation to World Supply

PETROLEUM has been brought into a position of world prominence on account of the relatively cheap methods by which it can be transported, the ease with which it can be converted to power and the efficiency with which it can be used for fuel. It has, therefore, become of vital importance in highly industrialized countries with the result that within the past few years the demands for it have grown so enormously that the supply has been inadequate in spite of expanded production. In 1947 Canada produced 7,729,483 bbl. of crude oil or slightly more than 8 p.c. of the amount consumed. The remainder, consisting of 69,828,000 bbl. of crude oil and 16,268,000 bbl. of petroleum products, was imported. Thus the availability of petroleum in the world's markets, particularly in the Western Hemisphere, is of great importance to Canada where consumption is now about 270 gallons per capita per year.

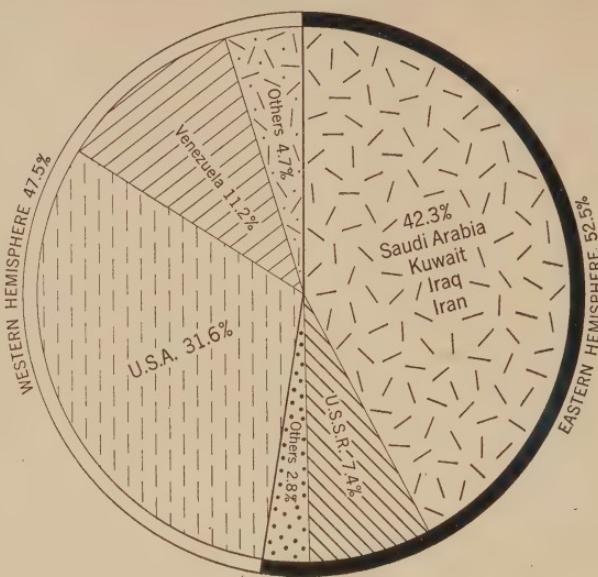
In the past Canada's main imports of petroleum came from the United States where an excess of oil was previously available for export. In 1947, however, imports into that country were about equal to exports and it is now recognized that in the near future the United States will become a net importing country. This has not come about by declining production because in 1947 production in the United States exceeded the yield of the peak war year of 1945 by 423,700 bbl. a day and by September, 1948, this had risen another 99,500 bbl. to a record daily production rate of 5,525,000 bbl. The increase in demand, however, has surpassed the discovery rate with the result that to-day the United States is using more oil than the entire world used in 1938. The increase in the production rate confirms the belief that the United States has not yet reached its maximum yield but the presently developed fields are now producing at or very close to their maximum efficient rates and there is no excess available crude oil productive capacity.

In 1947 the total oil production of the world amounted to 3,004,424,000 bbl. or 8,231,000 bbl. a day (*World Oil*, July 1948). According to the Director, Oil and Gas Division, Washington, the proven crude oil reserves of the United States are about 21,000,000,000 bbl. or 31·6 p.c. of the world's proven reserves of 70,400,000,000 bbl. This is oil capable of production through wells which in the United States in 1947 yielded 1,920,026,000 bbl. or 63·9 p.c. of the world yield. Venezuela with 11·3 p.c. of the world reserves yielded 14·5 p.c. of the total world production. Thus in the Western Hemisphere, which has 47·5 p.c. of the world's developed oil reserves, 42·8 p.c. are in the United States and Venezuela and these two countries in 1947 produced 78·4 p.c. of world oil supply. Canada with only about 0·3 p.c. of the world's

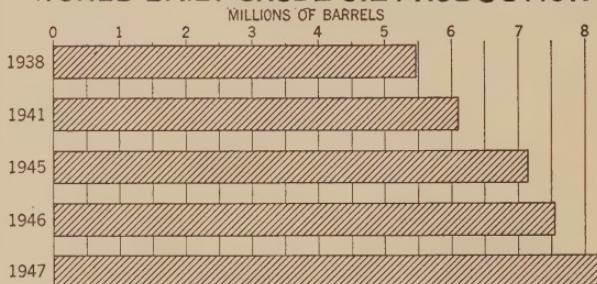
\* Prepared by Dr. G. S. Hume, Chief, Geological Survey of Canada, Department of Mines and Resources, Ottawa.

## WORLD PROVEN OIL RESERVES, 1948

70,400,000,000 BARRELS



## WORLD DAILY CRUDE OIL PRODUCTION



developed reserves uses 3.1 p.c. of world production. It is thus apparent if in the future Canada cannot draw more heavily on the United States for oil imports these will probably have to come from Venezuela, the only other large source in the Western Hemisphere. In 1947 Canada imported 69,828,000 bbl. of which 38,909,000 bbl. came from the United States, 27,797,000 bbl. from Venezuela and the remainder from Colombia, Trinidad and Mexico. The amount received from Venezuela has greatly increased in recent years.

The Eastern Hemisphere has 52.5 p.c. of the world's proven reserves. Of these 42.3 p.c. is in the Middle East and 7.4 p.c. is in the U.S.S.R. with only 2.8 p.c. in other Eastern Hemisphere countries including all Europe and

the Far East. The Middle East oil is little developed and in 1947 there were only 211 producing wells in contrast to 428,522 wells in the United States. Thus at a comparable stage of development, in view of the indicated reserves of the Middle East, it is altogether likely that the reserves in the Eastern Hemisphere will greatly exceed those in the Western Hemisphere.

Thus in the world to-day there are only two areas with large oil production in excess of local requirements. These are the Caribbean area of the Western Hemisphere, in which the main excess supply is in Venezuela with a present production of 1,300,000 bbl. a day, and the Middle East in the Eastern Hemisphere, where the potential supply is enormous, far exceeding any other area in the world but from which production in 1947 was only 303,829,000 bbl. or at the rate of 832,400 bbl. a day. It is generally conceded that under conditions of stability the Western Hemisphere is capable of supplying its oil requirements for many years to come but vigorous search for new supplies is needed to keep reserves at a safe level. Economic methods of obtaining oil from oil shales and other sources are being investigated and already synthetic plants to convert natural gas into oil products are under construction in the United States.

### *The Oil Situation in Canada*

**Eastern Canada.**—Canadian oil resources are very unevenly distributed. More than 99 p.c. of the proven reserves are in Western Canada east of the mountains. Early oil operations, however, were mostly confined to Eastern Canada. Drilling began in Ontario in 1860 and prolific production followed. In New Brunswick in 1859, interest was aroused in an area east of the Petitcodiac River and four wells were drilled. These were followed by seven more wells in 1876-79 and beginning in 1901 a further drilling program resulted in the completion of 78 wells, a number of which, however, were rather shallow. Several thousand barrels of oil were produced. The development of the present Stony Creek field, west of the Petitcodiac River, began in 1907. In the Gaspe Peninsula of Quebec attention had been drawn to the oil seepages as early as 1836 but actual drilling operations were not attempted until 1865-66 and small quantities of oil were produced. The drilling program was greatly expanded in 1889 and more than 50 wells were completed. A small refinery to handle the few thousand barrels of oil that were produced was built in 1900-01. All operations ceased in 1902 but sporadic drilling activity has continued throughout the years culminating in the exploration campaign now being undertaken.

The area undoubtedly has favourable structural conditions for the occurrence of petroleum but it has yet to be demonstrated that among the petroliferous succession of strata there are beds with sufficient porosity to form reservoirs capable of yielding copious supplies of oil. Also there are undoubtedly favourable sedimentary conditions in Nova Scotia and New Brunswick and an exploration program has been proceeding in the area between Moncton and Sussex. Attempts to find oil on Prince Edward Island ceased in 1945 when a well drilled from a pier in Hillsborough Bay near Governor Island was abandoned in salt beds at a depth of 14,696 feet without having reached the possibly productive formation.

In 1947 imports of crude oil for refining into the Maritimes and Quebec were 4,158,107 bbl. from the United States, 21,656,171 bbl. from Venezuela

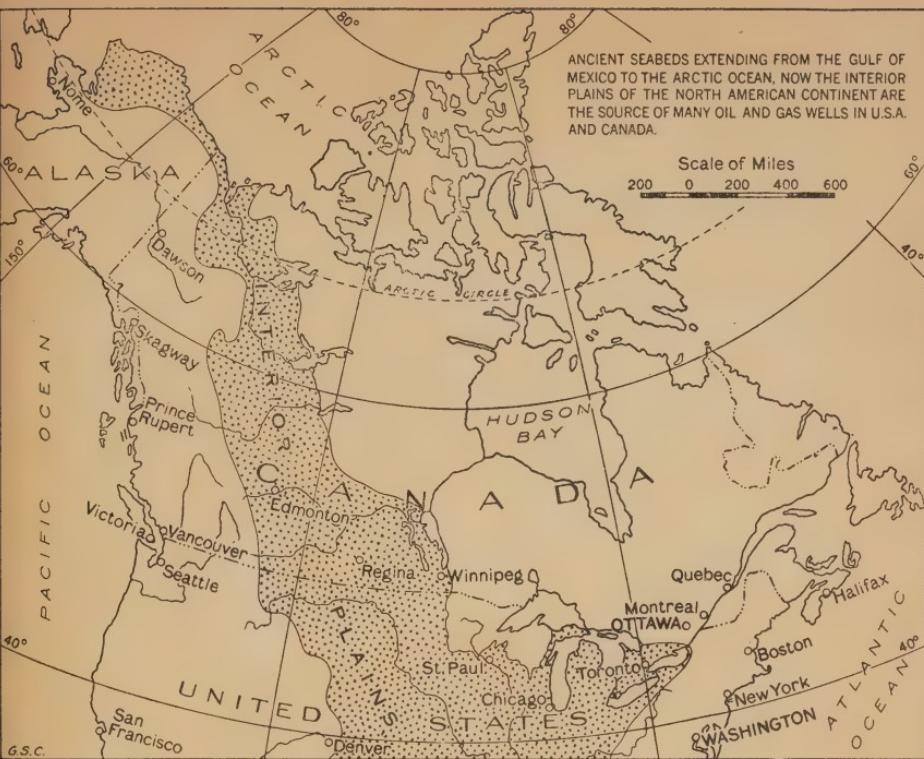
and 2,636,476 bbl. from Colombia, Trinidad and Mexico, a total of 28,450,754 bbl. This oil is transported by ocean tanker either to Canadian refinery ports or to Portland, Maine, whence a 12-inch 234-mile pipe line with a capacity of 60,000 to 70,000 bbl. a day runs to Montreal. It is reported that by the construction of an additional 20-inch pipe line when steel becomes available the capacity will be increased to 175,000 bbl. a day.

Production of oil in Ontario has continued since 1858 when oil was produced from shallow wells. After the completion of the Drake Well in Pennsylvania drilling into the bedrock in Ontario opened up a number of oil fields with the result that for a time production exceeded consumption and, as the wells could not be controlled, a considerable amount of oil was wasted. By 1894, however, production had reached a peak of 829,104 bbl. and since that time there has been a decline to the present production of 120,000 to 130,000 bbl. a year. The search for natural gas in Ontario in recent years has been more intense than the search for oil but small new oil fields continue to be found. There is no possibility that any large discoveries sufficient to meet requirements will be found.

In addition to a domestic production of 130,135 bbl. in 1947, Ontario refineries imported 21,192,461 bbl. of crude oil from the United States, 5,952,463 bbl. from Venezuela and 421,601 bbl. from Trinidad and Colombia. Oil comes to the large Sarnia refinery by pipe line from the United States and the supply is now partly derived from Venezuela through tanker shipments to Atlantic ports. The imports of crude oil into all Eastern Canada in 1940 were 35,852,940 bbl. whereas in 1947 they were 56,017,279 bbl., an increase of more than 56 p.c. in seven years, indicative of the increased consumption of oil products that is still continuing.

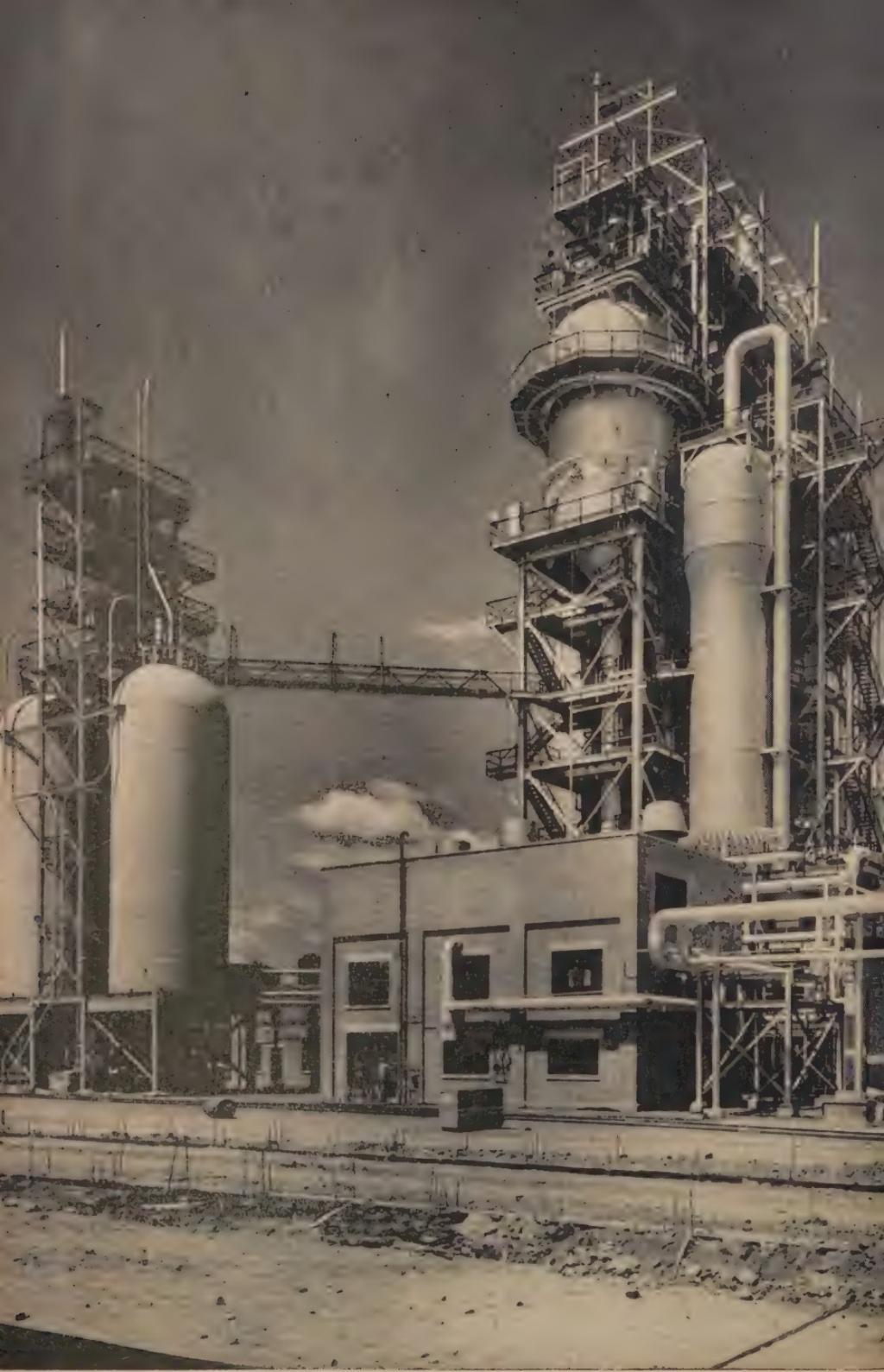
**The Prairie Provinces.**—Recent developments in the Prairie Provinces indicate that for this part of Canada self-sufficiency in petroleum requirements is now in sight and indeed an excess may become available for use elsewhere. The greatest search for oil that Canada has ever experienced is now taking place in Alberta. Sedimentary strata occupy a basin of marine deposition extending from the Gulf of Mexico to the Arctic Ocean in the vicinity of the Mackenzie River delta. In the United States in Texas, New Mexico and the northern Rocky Mountain States many oil fields have been found within this sedimentary basin in relatively moderately folded beds and similar favourable conditions occur in Canada where intensive exploration is now being undertaken and where such fields as Leduc and Norman Wells have already been found. It is anticipated, therefore, that present developments are only the beginning of what, it is hoped, will develop into a major oil-producing area.

For many years after its discovery in 1924, the Turner Valley field in the foothills, 40 miles southwest of Calgary, was the principal producer. The original drilling in this field took place in 1913-14 but the deeper limestone productive zones were not reached at that time. From 1924 to 1936 the production was altogether light oil or naphtha recovered from natural gas which was largely wasted. Subsequent to 1936 the greater part of the production was light-gravity crude oil from depths of 6,500 to 9,000 feet. The peak production of the field was reached in February, 1942, when a maximum yield of more than 29,000 bbl. was obtained. Since that time production has declined to less than half that amount. Turner Valley was the main source



of oil in Canada during the War of 1939-45 and in order to maintain as high a productive capacity as possible the Federal Government, through a Crown Company, sponsored the drilling of 22 wells in a part of the Turner Valley field that was then regarded as commercially uneconomic. Twenty-one of these wells were successful and production has been better than originally anticipated. The wells are still yielding oil and their accumulated production is now more than 1,500,000 bbl. The search for extensions and new productive zones in Turner Valley has been continued throughout 1948 and it now appears that a new phase of development is commencing in the north end of the field.

The search for oil throughout the Prairie Provinces was vigorously maintained during the War and several new oil fields were discovered. Since the War the search has been intensified and a large expansion in development has occurred. New fields discovered include: Vermilion in 1939, East Taber in 1942, West Taber in 1944, Conrad in 1944, North Princess in 1944, South Princess in 1946, Lloydminster with renewed activity in 1943 leading to intensive development beginning in 1944, Leduc in 1947 with the Woodbend extension both in the Devonian and Cretaceous in 1948, the gas-distillate Pincher Creek field in 1948, the Armena and Redwater discoveries in 1948, of which the results as yet cannot be fully assessed although Redwater is undoubtedly of major importance. In addition to these petroleum developments several new natural-gas fields were found and one greatly extended while a very important gas-distillate field was opened up at Jumpingpound in 1944.



Canada's first fluid catalytic cracking unit, the most impressive of four major units added to Imperial Oil's Montreal East refinery in 1948. The new unit will increase the production of higher octane gasolines and other petroleum products.

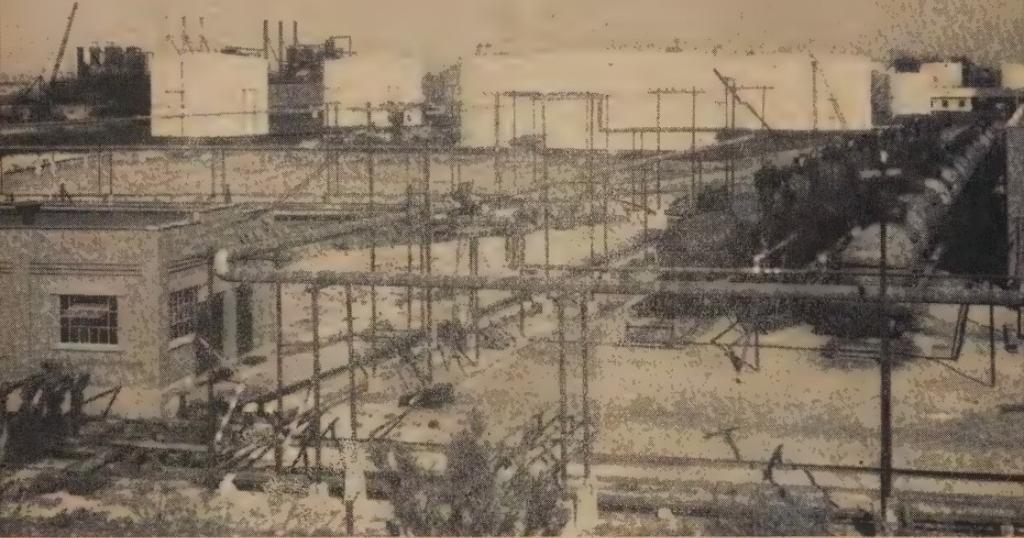
Among the new fields the discovery of Leduc and the expansion<sup>7</sup> of Lloydminster have had a most beneficial effect on increased production in 1948. These fields are complementary in that Leduc produces light crude oil capable of refining into high-grade light products whereas the Lloydminster production is heavy asphaltic-base oil best suited for lower-grade petroleum products, asphalt and fuel oil. The two oils, therefore, largely supplement one another in supplying products needed for the Prairie markets. Both fields have continued to expand rapidly and for July, 1948, production of oil from Alberta was 33,369 and Saskatchewan 3,096 or a total of 36,465 bbl. a day with imports of crude oil from the United States for Prairie refineries dropping to 460,885 bbl. or an average of 14,860 bbl. a day. This is a very considerable improvement compared with July, 1947, when imports of crude oil for the Prairie Provinces were 638,200 bbl. or an average of about 20,600 bbl. a day. It is altogether likely, therefore, with continued expansion particularly in the Leduc and Woodbend fields that domestic production will be adequate for the Prairie market by the end of 1948.

The Leduc and Woodbend discoveries occurred at a most opportune time when the demand for oil was increasing and the production was showing a gradual decline. Not only has exploration for petroleum been greatly stimulated but the Leduc-Woodbend field gives promise of becoming a major producing area with recoverable oil from present proven acreage estimated to be considerably in excess of 100,000,000 bbl. and may be even more than 200,000,000 bbl. The oil occurs in two zones in Devonian limestones at depths of 5,100 to 5,400 feet. An interesting feature of this field is that the lower zone is thought to be a coral-reef deposit. Drilling during the War under the Canol Project established the fact that production in the Norman Wells field of the Mackenzie River area also occurs in a coral reef. Coral reefs are known in the Devonian southwest of Great Slave Lake and

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*Gas and oil products refinery, Turner Valley, Alta.*





*Loading racks and tanks at an Alberta refinery.*

elsewhere in the Mackenzie District and it is not improbable, therefore, that between Leduc and Norman Wells in the area east of the Rocky Mountains other coral reefs may be found under conditions suitable for oil accumulation. This together with favourable sedimentary conditions for the occurrence of oil in the Cretaceous and other Mesozoic beds has given ground for the hope that, in the large area comprising the western part of the Prairie Provinces and extending into the northeast part of British Columbia, the southeast part of the Yukon and the basins of the lower Liard and Mackenzie Rivers in the Northwest Territories, there may be very extensive oil deposits.

In the late summer of 1948 drilling in the Redwater area, about 30 miles northeast of Edmonton, discovered a new oil field that gives promise of being of major importance. The thickness of the porous oil-filled reservoir beds is 140 feet and the production of individual wells is, therefore, likely to be large both in daily and ultimate yield. The size of the field is not yet indicated by drilling but, based on presently known structural data, it will undoubtedly be quite extensive. Production from this field, together with that from other fields, is likely to lead to a surplus of oil in Alberta above local requirements. Plans for a pipe line to Regina are under way and time of construction will be dependent on the availability of steel pipe.

**The Pacific Area.**—There are no oil fields on the Pacific Coast in Canada. The prolific Tertiary oil fields of California are in marine sediments but beds of equivalent age in Western Canada are mainly non-marine and the prospects of finding oil in them are not considered good. Therefore all oil used in British Columbia is imported. On the east side of the Province a certain amount is derived from Alberta but the supply for Vancouver and

New Westminster refineries is derived wholly from foreign sources. Before the War this imported oil came exclusively from California. During the War, however, demands on California production became so great that it was necessary to import oil into British Columbia through the Panama Canal from Venezuela. After the War, California again became the source of nearly all imported British Columbia oil and there is no doubt this situation will continue as long as California can meet the tremendous demands that are being made on its supply. Production in California reached 951,000 bbl. a day in June, 1948, but some concern is being expressed that only for a limited time will the reserves be adequate to meet the greatly increased consumption unless more major discoveries are made. Thus the situation in British Columbia is not entirely satisfactory from the long-term viewpoint. In 1947 imports of crude oil into British Columbia were 6,261,415 bbl. from California, 188,433 bbl. from Venezuela and 63,719 bbl. from Colombia. This is equivalent to a consumption of 17,845 bbl. a day in 1947; in the first six months of 1948 this rose to 18,485 bbl. a day.

The prospects for developing supplies of oil in the Peace River area of British Columbia are relatively good. Except for the Alaska Highway this area is largely lacking in roads and much of it is difficult of access. In addition, local markets for oil products are insignificant so that an outlet, either southward to the Prairies where there is already a good supply or westward to the Pacific where there is a growing demand, would have to be found. In order that an outlet might be economically constructed to the west through a mountainous terrain a minimum reserve of not less than 300,000,000 bbl. of oil would have to be proven. Thus the initial expenditures for exploration, discovery, development and outlet would be extremely large before any significant quantity of oil could be marketed. It is not surprising, therefore, under these conditions that even though the prospects in the Peace River area of British Columbia may be relatively good there has as yet been very little prospecting for oil.

Another area in British Columbia that in the past has aroused some interest is the Flathead Valley in the southeast part of the Province. Oil seepages are present there, though under rather unusual geological conditions. Perhaps because of this, and owing to the fact that the only access by road is from the United States, the area has not received the attention it would seem to merit.

**The Northwest Territories.**—During the War under the Canol Development Project, the Norman Wells field on the Mackenzie River, 90 miles south of the Arctic Circle, was greatly extended. The work was undertaken purely as a defence operation. Normally, it would have been quite uneconomic because of the remoteness of the field from markets and the lack of roads and other transport facilities. After the threat to the Northwest had passed, operations under the Canol Project ceased.

This field was discovered in 1919 and a small refinery was constructed to produce petroleum products for local consumption from the yield of four wells. Drilling begun in 1942, however, revealed that a large part of the oil field is under the Mackenzie River between the east bank and Bear and Goose Islands, parts of which are productive. The total area of the field is about 4,010 acres of which 1,870 acres underlie the Mackenzie River

where ice conditions prevent the location of wells. Directional drilling may possibly drain 460 acres of the area under the River. It is estimated that 36,250,000 bbl. of oil can be recovered.

The oil in the Norman Wells field is derived from a coral reef in Upper Devonian sediments. The top of the reef limestone occurs at a depth of about 1,050 feet but as the reef is in a west-dipping succession of beds this depth increases westward to about 2,000 feet on Bear Island at the western edge of the field. Capacities of the wells are variable up to 1,000 bbl. a day but production was taken at moderate rates in accordance with good conservation practices. Up to May, 1944, when the contract under the Canol Project ended, 64 productive wells had been drilled.

Under the Canol Project a 578-mile pipe line with 10 pumping stations was constructed from Norman Wells to Whitehorse, Y.T. With the exception of 140 miles of 6-inch pipe on the Whitehorse end, the line was 4-inch and capable of delivering 3,000 to 4,000 bbl. a day, which was not sufficient for an economic operation. Oil was put into the pipe line in December, 1943, and 971,854 bbl. of oil were delivered at Whitehorse before the cessation of operations in March, 1945.

Subsequent to the Canol operations Imperial Oil, Limited, drilled 15 wells in various parts of the Mackenzie Basin extending from Sans Sault Rapids and Mountain River in the north to Radstone River in the south, a distance of 160 miles. None of these wells obtained oil or gas and explorations have been suspended for the present time.

A refinery at Norman Wells supplies local transportation and fuel-oil requirements and provides a supply of oil products for mining activities on Great Slave and Great Bear Lakes. Production from the Norman Wells field was 231,844 bbl. in 1947.

### *Athabaska Bituminous Sands*

Alberta possesses an enormous potential supply of oil in the bituminous sands of the Fort McMurray area. The world's presently proven reserves of oil are about 70,400,000,000 bbl. and estimates of the amount of oil in the bituminous sands vary from 100,000,000,000 to 250,000,000,000 bbl. Only a part of this, however, would be recoverable under most favourable conditions and at present, although processes have been devised for the mining extraction and treatment of the bitumen, these are not yet considered to be economically feasible.

The bituminous sands outcrop along the Athabaska River from 42 miles above Fort McMurray to 76 miles below it. Much of the deposit is covered either by glacial drift of variable thickness or in the south and southwest by the overlying Cretaceous formations. The bituminous sands are in the McMurray formation which has a maximum thickness of 225 feet. The sands, however, are impregnated with bitumen in varying amounts and clay and shale bands are interstratified with the sand bands. In some areas sands may constitute the greater part of the formation but in other places bands of clay form a high percentage of the deposit.

During the War, the Department of Mines and Resources, Ottawa, drilled several areas of the bituminous sands to obtain accurate data on bitumen content. The best results were obtained in the Mildred-Ruth lakes area on the west side of the Athabaska River, 22 miles below Fort McMurray. It is

considered the proven and indicated bitumen in about  $4\frac{1}{2}$  square miles of this area is 900,000,000 bbl. or sufficient for the continuous operation of an 80,000 bbl. a day plant for 30 years.

Research work is being continued on the Athabasca bituminous sands both by the Bureau of Mines at Ottawa and the Research Council of Alberta. During the War a pilot plant, owned by Abasand Oils but sponsored by the Federal Government, operated for a time on Horse River, near Fort McMurray. A plant, sponsored by the Alberta Government has been built by Oil Sands, Limited, at Bitumont, 50 miles north of Fort McMurray. This plant began operations in the late summer of 1948 in an effort to determine costs of mining and extraction based on hot-water separation but operated only for a short period. The data from pilot plant operations are needed to form the basis for consideration of the feasibility of commercial plans.

### Summary

The vast area of Canada from Winnipeg westward to the Rocky Mountains and northwestward through Saskatchewan, Alberta, southeastern British Columbia, southeastern Yukon and the Mackenzie River Basin to the Arctic Ocean offers favourable prospects for further oil discoveries. Except along the southern fringe, much of this territory is difficult to explore by ordinary methods because of the lack of easy access. Transportation by tractor trains may make large areas of muskeg more available in winter than in summer so that exploration methods will have to be devised to meet local needs. There is little doubt, however, that the whole area will be carefully explored as the sedimentary sequence and structural conditions are such that further oil discoveries will almost certainly be made. Adequate base maps prepared by ground control of air photographs and geophysical surveys by modern methods will greatly assist the geological interpretation in the search for new oil fields.

In addition, although oil from the bituminous sands of northern Alberta cannot be produced by presently known methods as cheaply as from wells in the known oil fields, recovery and refining technique is constantly being improved and there is no doubt that eventually methods will be devised which will allow the economic exploration of these deposits.

Cores taken for examination while drilling a wild-cat well.





*The Peace Tower, Parliament Buildings, Ottawa.*

# Citizenship and Canadian Unity

**C**ITIZENSHIP is an outgrowth of man's natural aptitude for association and co-operation in the social and political sense. It is not an innate quality but must be acquired by education, experience and training, and be superimposed on such inborn qualities as loyalty, unselfishness and willingness to subordinate one's own desires to the common good. The words of Lowell, "Before man made us citizens, great Nature made us men", express this truth admirably.

The essence of good citizenship is patriotism, that is, loyalty to and a deep abiding love of one's country. Patriotism brings to a focus the finer individual qualities that work towards the best interests of the nation: it therefore makes for continuous improvement in the conditions under which the people live, and brings about the cohesion of all elements into a hard core of resistance when outside forces threaten the nation's existence. Better citizenship is, in this sense, the precipitate of better human relations—a livelier sense of responsibility to our neighbours.

Before 1947, Canadian citizenship was not recognized officially. Internationally Canadians were regarded as "British Subjects domiciled in Canada". As a result of development in Canada's status as an independent nation within the Commonwealth, it became advisable to establish abroad a clear conception of Canadian citizenship which, at home, would also serve to bridge the gaps created by geography and racial descent. In 1921 legislation had been enacted to distinguish Canadians from other British subjects but, unfortunately, this served merely to complicate the issue by defining a Canadian National as "a British Subject who is a Canadian Citizen within the meaning of the Immigration Act". There was, in addition, a Naturalization Act by which a foreigner could become a British subject, the result being that a person could discover how to become a Canadian National only by a study of the Naturalization Act, the Immigration Act and the Canadian Nationals Act.

The Canadian Citizenship Act, which came into force Jan. 1, 1947, has cleared up many of these difficulties and uncertainties and established the right of Canadians to be officially recognized as such. Under its provisions all persons born in Canada automatically become Canadian citizens and cannot be deprived of their citizenship unless they themselves take definite steps to acquire another nationality. Immigrants who are naturalized in Canada become citizens and retain their citizenship so long as they remain here. Should they leave for prolonged periods and fail to report, their citizenship can be revoked after an absence of six years. Many other anomalies that previously existed have been cleared up. For instance, it was the rule, not only in Canada but in practically every other country of the world, that a married woman automatically acquired the nationality



of her husband on marriage and lost the nationality which she possessed at the time of the marriage. In process of time a number of countries, notably the United States, enacted legislation providing that an alien woman marrying a citizen of that country did not acquire the husband's nationality automatically on marriage. The consequence was that a number of women lost their Canadian nationality but did not acquire the nationality of the husband and were accordingly left stateless.

To remedy this situation, the Naturalization Act was amended in 1932 to provide that a woman would not lose her nationality on marriage to an alien unless under the law of her husband's country she automatically acquired his nationality. The Canadian Citizenship Act of 1946, however, is the first Statute in any part of the Commonwealth which provides that a woman is no longer a person under a disability but retains her Canadian citizenship on marriage unless she takes active steps to change it.

The enactment of the new citizenship legislation does not weaken Commonwealth or other international ties. Indeed, the Act has been followed as a model by other parts of the Commonwealth and at London, England, where legislation differentiating between British Subjects and Citizens of the United Kingdom and Colonies has been framed.

The new conception of Canadian citizenship that the Act of 1946 has brought into being has meant a strengthening of the standards upon the basis of which certificates are issued. In the past, there was wide variation throughout the country in the interpretation of the requirements for naturalization certificates by the various judges who dealt with applications. In some cases, applicants were turned down through lack of qualifications, though facilities had not been provided for their instruction. The Secretary of State of Canada is empowered by the Citizenship Act to take measures to provide facilities for applicants for certificates to receive instruction in the responsibilities and privileges of Canadian citizenship.

Immediately following the passage of the new legislation, the Secretary of State, in consultation with all the judges concerned, decided upon a minimum standard of qualification that would be acceptable. The definition of "good character", for instance, was not, as so often happened in the past, to be merely negative, such as "absence of a police record", but was to be based on a positive showing of those qualities of character that would lead the applicant to be a decent, hard-working and law-abiding citizen. Again, "adequate knowledge of English or French" is now generally interpreted by the Courts to mean "actual ability to read simple Canadian newspaper reports"; and a knowledge of Canadian history, geography, form of government and the means by which it is carried out is required.

In conformity with the new conception of Canadian citizenship as defined in the Act, the form of oath of allegiance has been changed. Under the Naturalization Act it read as follows:

"I (AB) swear by Almighty God that I will be faithful and bear true allegiance to His Majesty King George the Sixth, his Heirs and Successors, according to law. So help me God."

Under the new Act it is:

"I (AB) swear that I will be faithful and bear true allegiance to His Majesty King George the Sixth, his Heirs and Successors, according to law, and that I will faithfully observe the laws of Canada and fulfil my duties as a Canadian citizen. So help me God."

The Canadian Citizenship Act thus provides an underlying community of status for all the people of Canada. It should broaden their horizons and enable them to look out upon the world with a stronger feeling of national pride and confidence. Hitherto, there has been an inclination to claim nationality in terms of racial origin which has tended to hold Canadians apart rather than bring them into unity. The new Act will serve to minimize the persistence of individual traits in the racial groups that make up the composite of the Canada we know and love.

Yet the mere passing of an Act will not of itself bring these desired objectives into being: it only opens the door. Citizenship requires work—patient, persistent, hard work—contributed by each in his chosen field, if its fruits are to be fully enjoyed.

Newcomers to Canada, carefully selected from displaced persons camps in Europe, enter a new life and as future citizens have much to contribute to the economic and social life of this country.



Each year approximately 200,000 sons and daughters of Canadians become 21 years of age and thus reach full status as citizens. They have, in the normal course of their education, received a broad grounding in the fundamentals that constitute the Canadian way of life. To them will be passed "the torch, to hold it high" and if the home and the school have done their duty, the first loyalty of these young citizens will be to the country that gave them birth and provided the opportunity for the unfolding of their talents and the expression of their personalities in an atmosphere of freedom.

In accepting their rights as citizens they will also know something of the commensurate duties and responsibilities that go with it and that public office is to be considered as a trust bestowed for the good of the country and not for the benefit of the individual or party. These young Canadians, supported and encouraged by the voluntary efforts of the social organizations that stand ready to help and guide them, are the main bulwark against subtle and insidious indoctrination from without, which, in our own time, has shown how effectively it can undermine the foundations of even well-established States.

The problem of bringing to immigrants a greater appreciation of the meaning of citizenship is more complicated. Many newcomers to our shores are imbued with preconceived loyalties: our particular quality of citizenship can hope to replace these only through a stronger appeal.

In the first place, it must be remembered that all immigrants come to Canada voluntarily and with a knowledge of the sort of people with whom they are casting in their lot. Most of them come prepared to embrace citizenship with us: they want to be Canadians and to participate in and contribute to our economic and social life. Often they have good reasons for renouncing old ties. If the loyalties of new arrivals are at first weak, at least their enthusiasms are strong, and the transplanted flower frequently develops latent possibilities that were not evident in its former environment.

Secondly, assimilation of different racial stocks requires sympathetic effort on our side, as well as on the part of the immigrant. Whether or not these people become good citizens, instead of mere dwellers among us, depends upon the way we help them to become interested members of our communities. This responsibility is the heavier since, in the national interest, the policy of selecting our immigrants from among the most promising material has been decided upon. Fortunately, it is a part of the genius of the British and American peoples that they have the gift of successfully assimilating other stocks. In this way alone, has it been possible to build the strong nations that inhabit the countries of the Commonwealth and of North America.

Training in citizenship and the sincere, whole-hearted acceptance of its responsibilities by young and old alike are among the best means of building up national unity and strength. Education for citizenship is most effective when undertaken voluntarily on both sides. Thus the Canadian Citizenship Council is representative of many national voluntary organizations doing similar work, church associations, community societies and groups, clubs, the Boy Scouts and Girl Guides—all are working unselfishly and most effectively in helping Canadians, as well as the immigrants who take up the threads of their interrupted lives among us, to become good members of society.



## MOTTOES AND EMBLEMS

\*

### Canada

MOTTO.—*A mari usque ad mare* (From sea to sea).

EMBLEM.—Maple Leaf.

### Ontario

MOTTO.—*Ut incepit fidelis sic permanet* (As loyal she began so shall she [ever] remain).

EMBLEM.—White Trillium (Ont. Stat. 1937, c. 26).

### Quebec

MOTTO.—*Je me souviens* (I remember).

EMBLEM.—Maple Leaf.

### Nova Scotia

MOTTO.—*Munit hæc et altera vincit* (One defends and the other conquers).

EMBLEM.—Trailing Arbutus (or Mayflower) (N.S. Stat. 1901, c. 10).

(Concluded on back fold of this insert)





THE WHOLESOME SEA  
IS AT HER GATES





## MOTTOES AND EMBLEMS

\*

### New Brunswick

EMBLEM.—Purple Violet (Prov. Order in Council, Dec. 1, 1936).

### Manitoba

EMBLEM.—Crocus (Man. Stat. 1906, c. 29).

### British Columbia

MOTTO.—*Splendor sine occasu* (Splendour without diminishment).

### Prince Edward Island

MOTTO.—*Parva sub ingenti* (The small under [the protection of] the great).

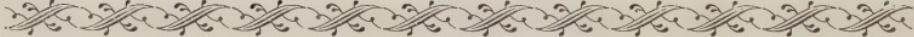
EMBLEM.—Lady's Slipper (P.E.I. Stat. 1947, c. 15).

### Saskatchewan

EMBLEM.—Prairie Lily (Sask. Stat. 1941, c. 8).

### Alberta

EMBLEM.—Wild Rose (Alta. Stat. 1930, c. 38).





A Roumanian-born farmer taking the oath of allegiance before Chief Justice Thibaudeau Rinfret at the first official citizenship ceremony, Supreme Court, Ottawa.

Since the Canadian Citizenship Act was passed, the Provincial Governments have co-operated with the Canadian Citizenship Branch of the Department of the Secretary of State in providing special educational facilities for immigrant arrivals. The Citizenship Branch has undertaken to provide certain basic materials, including pamphlets for the information of newcomers who file with the Courts declarations of intentions to become citizens. On the other hand, the Provincial Departments of Education have, wherever possible, established instructional facilities in their geographic areas. Remote areas are covered by correspondence courses and travelling teachers. Immigrants still more difficult to reach, such as those engaged in the primary industries of lumbering or mining, will receive instruction from teachers actually located in the camps. Such basic training is available to all newcomers for five years after their arrival in Canada. Thus, Canadian citizenship is not lightly given and must not be carelessly assumed.

In the words of the Rt. Hon. W.L. Mackenzie King, "Whether we like it or not, the future of our country is wrapped up with the future of all countries. In this atomic age, the alternatives which face Mankind are universal destruction or unparalleled freedom. Canada will help to decide in which of these opposing directions Humanity will move. . . That is the largest opportunity and the heaviest responsibility of Canadian citizenship".\*

\* Excerpt from an address delivered by the Rt. Hon. W. L. Mackenzie King, O.M., then Prime Minister of Canada, at the National Citizenship Ceremony, Supreme Court Building, Ottawa, Jan. 3, 1947.

# Canada's External Services

**S**INCE Canada is one of the principal trading nations, its well being is dependent, to a high degree, on world trade and prosperity. An original member of the League of Nations before the Second World War Canada has always been a firm supporter of collective security as a way to peace. Support of the United Nations to-day is a corner-stone of its external policy. Canada's interest in the proposed North Atlantic Treaty is one of planning with other free nations for a combined effort to preserve peace and restrain aggression.

**A Middle Power.**—Canada's development towards the stature of a Middle Power is to-day shown in the added responsibilities undertaken in a world where the remotest nations are neighbours, and where shrunken distances are measured in terms of flying hours. In 1945, Canada signed the Charter of the United Nations at San Francisco, and has since taken an active part in the deliberations of the United Nations. Canada is a member of the Security Council, having been elected to one of the six non-permanent seats in 1947 and, until December, 1948, was also represented on the Economic and Social Council.

In addition, many of the Specialized Agencies of the United Nations—such as the International Labour Organization, the World Health Organization, the International Civil Aviation Organization and the Food and Agriculture Organization—count Canada among their members. Through participation in these specialized agencies Canada has supplemented the work which has been done by its representatives on the Security Council and the Atomic Energy Commission, and its delegations to the annual sessions of the General Assembly of the United Nations.

At the same time Canada has maintained its traditional associations with the other nations of the Commonwealth, and in 1948 was represented at meetings of Prime Ministers in London.



Canadian Delegation to the United Nations General Assembly in conference at Paris, September to December, 1948.

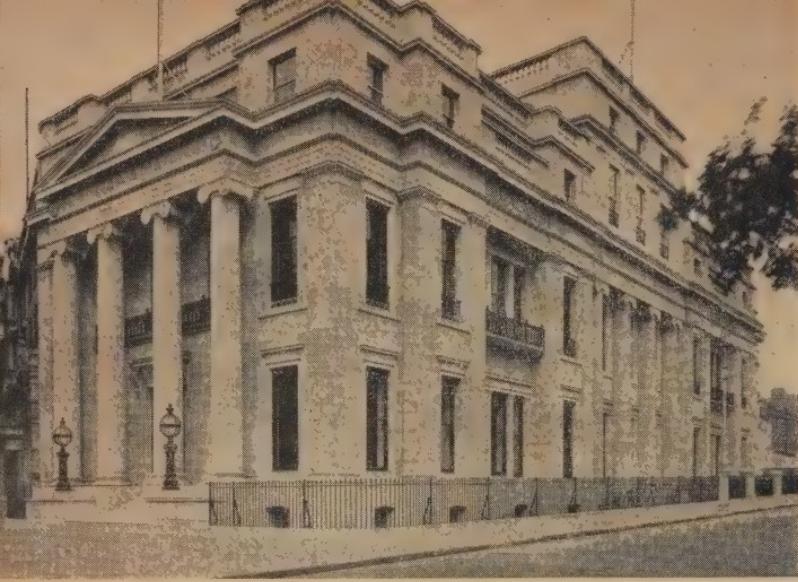


*The East Block of the Parliament Buildings, Ottawa, headquarters of the Department of External Affairs.*

The year 1948 marked the successful completion of the negotiations between Canada and Newfoundland leading towards the inclusion of Newfoundland in Confederation. The importance of Canada in the strategic area of the North Atlantic will therefore be greatly increased.

**Military and Economic Development.**—During the Second World War huge quantities of materials were made available without charge to the United Kingdom and other United Nations by a system of Mutual Aid similar to the Lend-Lease system of the United States. Canada also experienced a phenomenal industrial development, particularly in the production of munitions, mechanical military equipment, ships and aircraft. For two years it ranked as the world's second largest exporter, four-fifths of its exports consisting of war materiel.

Canada emerged from the War with an immensely greater productive capacity than in 1939, and as a relatively large creditor nation on current account. The reconstruction of Europe and the rebuilding of international trade are essential to Canada's interests as a great trading nation and Canadian resources have been directed to this end as well as to internal reconstruction. By the end of 1948 Canada had made available over \$2,000,000,000 in export credits and relief to its recent Allies, including a loan of \$1,250,000,000 to the United Kingdom. Canada also actively supported the establishment of the International Bank for Reconstruction and Development and the International



*Canada House, the office of the High Commissioner for Canada in London, England.*

Monetary Fund, and took an active part in promoting the International Trade Organization of the United Nations and in working out the charter of the Organization which was drafted in Havana in 1947 and 1948.

**Growth of Canada's Diplomatic Service.**—The Department of External Affairs was established in 1909. The Washington Legation was opened in 1927. The Agent-General in Paris was elevated to the rank of Minister the following year and in 1929 a Legation was opened in Tokyo; but the development of the new service was halted during the depression years of the 1930's. Only one further advance was made before the outbreak of war: in 1939, Legations were established in Belgium and the Netherlands, with the two missions served jointly by one Minister.

The period of the Second World War was marked by a rapid extension of Canadian representation abroad. New missions were opened in all member states of the Commonwealth and in many foreign countries. The growth of the diplomatic service continued after the end of the War, with the recruitment of personnel returning from the Armed Forces. By the autumn of 1948, diplomatic or consular missions were established in thirty-four countries.



*The Canadian Embassy, Paris, France.*

At present there are Embassies in Argentina, Belgium, Brazil, Chile, China, France, Greece, Italy, Mexico, The Netherlands, Peru, Turkey, the Union of Soviet Socialist Republics, and the United States. Legations are located in Cuba, Czechoslovakia, Denmark, Norway, Poland, Sweden, Switzerland and Yugoslavia. The Ambassador to Belgium is also accredited as Minister to Luxembourg.

Canada has High Commissioners in Australia, India, Ireland, Newfoundland, New Zealand, South Africa, and the United Kingdom.

The Canadian Consular service was first established during the Second World War. Consulates-general are now located in New York, Chicago, San Francisco, Lisbon and Caracas. Consulates are maintained at São Paulo, Shanghai, Frankfurt, Boston, Detroit and Portland, Maine.

Canada also has a Permanent Delegation to the United Nations in New York City; a Military Mission in Berlin and a civilian Liaison Mission in Tokyo.

**Departmental Publications.**—As part of its task of informing the public, both at home and abroad, which is interested in the development of external policy, the Department produces a number of publications. Of these the most important are the monthly bulletin *External Affairs*; the *Annual Report of the Secretary of State for External Affairs*; and the annual report, *Canada and the United Nations*.

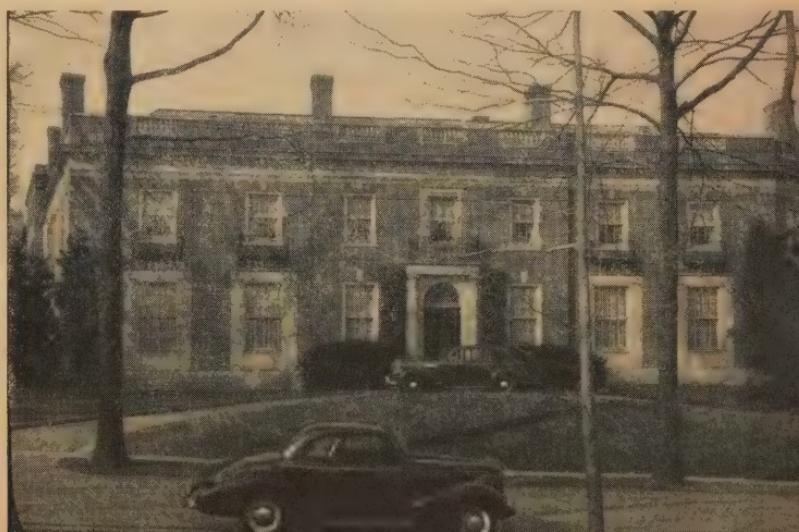
*External Affairs*, an official monthly publication of the Department, is designed to provide information on Canada's external relations and on the work of the Department of External Affairs. It includes special articles and it also presents a current and factual record of the policies and actions of the Canadian Government in external affairs through the publication of official statements, speeches and press releases; summaries of international conferences; and reference information.

The *Annual Report of the Secretary of State for External Affairs* gives an extended treatment of the work of the Department during the calendar year.

*Canada and the United Nations* examines all aspects of Canada's part in the deliberations of the United Nations during the calendar year.\*

\* The above-mentioned publications are available from the King's Printer and Controller of Stationery, Ottawa, Canada, on a subscription basis, as follows: *External Affairs*, 10 cents per single copy or \$1.00 per year (students 50 cents); *Annual Report*, single copy 10 cents; *Canada and the United Nations*, single copy 50 cents.

The Canadian Embassy residence,  
Washington,  
United States.





Children enjoy a ride on a load of cordwood in a northern Ontario town. The modern homes in the background rival those in city suburbs.

# Population Vital Statistics

## ★ Population

**I**N 1604, 79 whites and an unknown number of aborigines inhabited the area now known as Canada. The manner of growth to a total population of 12,883,000 in 1948 appears to have been decidedly cyclical, the peaks of growth coinciding with important points in history—the American Revolution, the Irish famine, the building of railways, and the opening of the West. The two maximum points of absolute increases in modern times were in the periods 1841 to 1861 and 1901 to 1911.

When the first census was taken in 1666, 62 years after the first settlers had been left at Ile Ste. Croix, there were 3,215 inhabitants, exclusive of aborigines. At the end of the seventeenth century the white population was approximately 17,000 and the actual increase was fairly constant for the next 70 years. In the decade of the American Revolution the number increased from 105,000 in 1771 to 150,000 in 1781. The coming of the United Empire Loyalists and their settlement in the Eastern Townships and along the upper St. Lawrence, Lake Ontario and the Niagara Peninsula in the last quarter of the eighteenth century, opened up new areas and Canada began the nineteenth century with a white population of 362,000. The million mark was passed in 1831 and the period of the Irish famine brought the total to 2,300,000. When the first Dominion Census was taken in 1871 Canada had a total population of 3,689,257. Since that date there has been a continuous measure of population growth by means of the decennial censuses and, beginning with 1906, of the quinquennial censuses of the Prairie Provinces.

But it was within the first decade of the present century that the most spectacular expansion of the population of Canada took place. The outstanding feature was, of course, the opening of the West to settlement. The unorganized southern stretch of the Northwest Territories, ceded to the Dominion by the Hudson's Bay Company soon after Confederation, had been traversed by the Canadian Pacific Railway between 1875 and 1885. But, though the western population had roughly doubled in each of the decades ended 1881, 1891 and 1901, it was only with the discovery of the wheat-growing potentialities of the prairies and the launching of a large-scale immigration movement after 1900 that western settlement became a factor of first importance. In the period 1901-11 immigration exceeded 1,800,000 and, though at least a third of these were lost to Canada, it formed the chief factor in the gain of 34 p.c. which the total population registered in that period and which was larger than the relative growth of any other modern country during the same period. The movement was continued in the first three years of the second decade after which a recession set in.

After the First World War immigration never again reached anything like its former levels and during the depression years of the 1930's it was still

further restricted by Government regulations as well as by economic necessity. The population increase in the period 1921-31 amounted to 18·1 p.c. and in the decade 1931-41 to 10·9 p.c. Between 1931 and 1941 and even to some extent in the previous ten years, the trend of movement of population was from the Prairie Provinces to Ontario and to British Columbia, the percentage increase for British Columbia in these two decades being higher than for any other province. Annual estimates since 1941 show the increase for Canada as a whole to be roughly 100,000 to 300,000 a year.

The drift to the cities and towns in Canada has been strikingly apparent since shortly after the middle of the nineteenth century, a trend characteristic of virtually all western nations. The movement has been brought about largely by the expansion of manufacturing and service industries and by improved transportation and communication facilities. In 1871 19·6 p.c. of the population dwelt in urban centres, in 1901 the proportion had risen to 37·5 p.c. and to 49·5 p.c. in 1921. In 1941 it was 54·3 p.c. The attraction of industry for labour during the Second World War has accentuated the trend in more recent years.

The sex distribution of the Canadian people has been characterized since early colonial times by a preponderance of males, although recently this condition has been greatly modified, especially after the rigid control of immigration following the First World War. From 1871 to 1941, for Canada as a whole, the proportion of males never dropped below 51 p.c. of the total population, whereas for Western Canada it varied between 53 p.c. and 59 p.c., the excess of males being more marked in the newer sections of the country. The 1941 Census showed more females in urban centres than males; of every 1,000 urban dwellers, 508 were females.

In recent years a more pronounced general ageing of the population has become evident owing to the coincident cessation of immigration and a lower birth rate. In 1921 some 18·3 p.c. of the total population was from 40 to 59 years of age; the proportion grew to 20·1 p.c. in 1931 and to 21·0 p.c. in 1941. Persons 60 years or over represented 7·5 p.c. of the total population in 1921, 8·4 p.c. in 1931 and 10·2 p.c. in 1941.

The Canadian population is made up of diverse races moulding themselves into a nation that takes its pattern from the land of their adoption. At the time of Confederation the largest individual British racial group was Irish, the Irish and Scottish together outnumbering the English by almost two to one. After 1881 the English predominated with Scottish in second place. At the time of the 1941 Census the numerical strength of the principal racial stocks was in the following order: French, English, Scottish, Irish, German, Ukrainian, Scandinavian, Netherlandish, Jewish and Polish.

In Canada, English and French are the official languages. The 1941 Census revealed 1,474,009 people speaking both, while 7,735,486 spoke English only and 2,181,746 spoke French only.

### Population Statistics

The following tables give a picture of the Canadian population from various angles at the time of the 1941 Census. In the space available in this publication, the subject of population can be dealt with only very summarily. Since the 1941 Census does not reflect current conditions in post-war Canada, estimates of the population for 1942-48 are given at p. 46.

## Population of Canada, Census Years 1891-1941 with Density, 1941

NOTE.—The figures for certain censuses are not altogether comparable but the qualifications are for the most part technical and are given in detail in the Census reports.

Province or Terri- tory	Population						Land Area in Sq. Miles	Persons per Sq. Mile 1941
	1891	1901	1911	1921	1931	1941		
P.E.I....	109,078	103,259	93,728	88,615	88,038	95,047	2,184	43.52
N.S.....	450,396	459,574	492,338	523,837	512,846	577,962	20,743	27.86
N.B....	321,263	331,120	351,889	387,876	408,219	457,401	27,473	16.65
Que.....	1,488,535	1,648,898	2,005,776	2,360,510	2,874,662	3,331,882	523,860	6.36
Ont....	2,114,321	2,182,947	2,527,292	2,933,662	3,431,683	3,787,655	363,282	10.43
Man....	152,506	255,211	461,394	610,118	700,139	729,744	219,723	3.32
Sask....	—	91,279	492,432	757,510	921,785	895,992	237,975	3.77
Alta....	—	73,022	374,295	588,454	731,605	796,169	248,800	3.20
B.C....	98,173	178,657	392,480	524,582	694,263	817,861	359,279	2.28
Yukon..	—	27,219	8,512	4,157	4,230	4,914	205,346	0.02
N.W.T..	98,967	20,129	6,507	8,143	9,316	12,028	1,253,438	0.01
<b>Canada</b>	<b>4,833,239</b>	<b>5,371,315</b>	<b>7,206,643</b>	<b>8,787,949<sup>1</sup></b>	<b>10,376,786</b>	<b>11,506,655</b>	<b>3,462,103</b>	<b>3.32</b>

<sup>1</sup> Includes 485 members of the Royal Canadian Navy who were recorded separately.

A public school in relation to a well laid out residential district of Regina, Sask.





**Halifax, Nova Scotia, Canada's eastern gateway.** The excellence of the harbour, one of the finest on the North American Continent, was responsible for the foundation of the town of Halifax by the English as a military post in 1749. The harbour, open the year round, is 16 miles long from north to south with an average width of one mile and is capable of accommodating the largest liners. The city will celebrate its 200th anniversary in the summer of 1949.

#### Rural Farm, Rural Non-Farm and Urban Population, by Provinces, 1931 and 1941

Province or Territory	1931		1941			
	Rural		Urban	Rural		
	Farm	Non-Farm		Farm	Non-Farm	
P.E.I.....	54,963	12,690	20,385	50,732	19,975	24,340
N.S.....	173,965	107,227	231,654	141,182	169,240	267,540
N.B.....	178,494	100,785	128,940	163,067	150,911	143,423
Que.....	743,598	317,458	1,813,606	823,791	398,407	2,109,684
Ont.....	785,550	550,141	2,095,992	694,684	754,338	2,338,633
Man.....	254,302	129,868	315,969	248,684	159,187	321,873
Sask.....	561,407	69,473	290,905	513,279	87,567	295,146
Alta.....	370,899	82,198	278,508	380,693	108,890	306,586
B.C.....	100,244	199,280	394,739	100,810	273,657	443,394
Yukon.....	74	2,796	1,360	42	3,075	1,797
N.W.T.....	Nil	9,316	Nil	Nil	12,028	Nil
Canada.....	3,223,496	1,581,232	5,572,058	3,116,964	2,137,275	6,252,416

## Urban Centres Having over 30,000 Inhabitants, 1931 and 1941

NOTE.—Populations for 1931 are those residing in the incorporated areas as of 1941.

Urban Centre and Province	1931	1941	Urban Centre and Province	1931	1941
Montreal, Que.....	818,577	903,007	Halifax, N.S.....	59,275	70,488
Greater Montreal.....	1,023,158	1,139,921	Greater Halifax.....	74,161	91,829
Toronto, Ont.....	631,207	667,457	Verdun, Que.....	60,745	67,349
Greater Toronto.....	810,467	900,491	Regina, Sask.....	53,209	58,245
Vancouver, B.C.....	246,593	275,353	Saint John, N.B.....	47,514	51,741
Greater Vancouver.....	308,340	351,491	Greater Saint John.....	58,717	65,784
Winnipeg, Man.....	218,785	221,960	Victoria, B.C.....	39,082	44,068
Greater Winnipeg.....	284,295	290,540	Greater Victoria.....	—	75,218
Hamilton, Ont.....	155,547	166,337	Saskatoon, Sask.....	43,291	43,027
Greater Hamilton.....	163,710	176,110	Three Rivers, Que.....	35,450	42,007
Ottawa, Ont.....	126,872	154,951	Sherbrooke, Que.....	28,933	35,965
Greater Ottawa.....	175,988	215,022	Kitchener, Ont.....	30,793	35,657
Quebec, Que.....	130,594	150,757	Hull, Que.....	29,433	32,947
Greater Quebec.....	172,517	200,814	Sudbury, Ont.....	18,518	32,203
Windsor, Ont.....	98,179	105,311	Brantford, Ont.....	30,107	31,948
Greater Windsor.....	110,385	121,112	Outremont, Que.....	28,641	30,751
Edmonton, Alta.....	79,197	93,817	Fort William, Ont.....	26,277	30,585
Calgary, Alta.....	83,761	88,904	St. Catharines, Ont.....	24,753	30,275
London, Ont.....	71,148	78,264	Kingston, Ont.....	23,439	30,126
Greater London.....	—	86,740			

## Distribution of Population by Sex and Age Groups, Census Years 1921-41

Age Group	1921		1931		1941	
	Males	Females	Males	Females	Males	Females
Under 10 years.....	1,062,053	1,044,190	1,115,679	1,091,485	1,062,995	1,034,679
10-19 years.....	864,517	850,350	1,068,180	1,045,462	1,121,516	1,099,396
20-29 "	698,593	699,050	873,698	823,768	1,006,296	993,120
30-39 "	685,537	599,674	727,216	670,083	828,044	775,356
40-49 "	523,335	438,780	669,276	562,034	681,119	630,572
50-59 "	343,266	298,974	466,492	389,214	591,100	507,496
60-69 "	217,012	194,262	277,607	248,124	381,074	333,801
70 or over.....	123,742	123,352	173,682	171,015	228,392	231,699
Not given.....	11,588	9,674	2,711	1,060	Nil	Nil
All Ages.....	4,529,643	4,258,306	5,374,541	5,002,245	5,900,536	5,606,119

## Leading Origins, by Provinces, 1941

Province	British Isles Races	French	German	Ukrain- ian	Scandin- avian	Nether- landish	Jewish	Polish	Indian
P.E.I.....	78,714	14,799	172	2	152	494	25	1	258
N.S.....	445,178	66,260	15,038	711	2,353	23,834	2,285	2,206	2,063
N.B.....	276,758	163,934	1,394	22	2,929	4,539	1,228	233	1,939
Que.....	452,887	2,695,032	8,880	8,006	4,840	2,645	66,277	10,036	11,863
Ont.....	2,729,830	373,990	167,102	48,158	27,225	73,001	69,875	54,893	30,336
Man.....	360,560	52,996	41,479	89,762	32,620	39,204	18,879	36,550	15,473
Sask.....	397,905	50,530	130,258	79,777	68,806	35,894	4,149	27,902	13,384
Alta.....	399,432	42,979	77,721	71,868	63,494	20,429	4,164	26,845	12,565
B.C.....	571,336	21,876	22,407	7,563	41,560	12,737	3,350	8,744	24,875
Canada <sup>1</sup> .....	5,715,904	3,483,038	464,682	305,929	244,603 <sup>2</sup>	212,863	170,241	167,485	118,316

<sup>1</sup> Includes Yukon and the Northwest Territories.  
21,050 Icelandic, 100,718 Norwegian and 85,396 Swedish.

<sup>2</sup> Includes 37,439 Danish,

## Birthplaces of the Population, Census Years 1901-41

Year	Canadian Born		Other British Born <sup>1</sup>		Foreign Born				Total Population
					U.S. Born		Other		
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	
1901...	4,671,815	86.98	421,051	7.84	127,899	2.38	150,550	2.80	5,371,315
1911...	5,619,682	77.98	834,229	11.58	303,680	4.21	449,052	6.23	7,206,643
1921...	6,832,224	77.75	1,065,448	12.12	374,022	4.26	516,255	5.87	8,787,949
1931...	8,069,261	77.76	1,184,830	11.42	344,574	3.32	778,121	7.50	10,376,786
1941...	9,487,808	82.46	1,003,769	8.72	312,473	2.72	701,660	6.10	11,506,655 <sup>2</sup>

<sup>1</sup> Includes some hundreds of persons born at sea.

<sup>2</sup> Includes persons with birthplace not stated.

## Conjugal Condition of the Population, by Provinces and Sex, 1941

Province or Territory	Single	Married	Widowed	Divorced	Permanently Separated	Total <sup>1</sup>
	MALES					
Prince Edward Island.....	29,828	17,625	1,549	22	202	49,228
Nova Scotia.....	173,506	111,132	9,359	247	1,770	296,044
New Brunswick.....	140,952	85,093	6,695	197	1,137	234,097
Quebec.....	1,027,162	591,533	46,386	500	7,270	1,672,982
Ontario.....	993,265	851,096	60,210	2,291	14,105	1,921,201
Manitoba.....	209,939	155,157	10,268	473	2,218	378,079
Saskatchewan.....	283,297	179,996	11,383	468	2,351	477,563
Alberta.....	243,666	168,469	10,594	801	2,891	426,458
British Columbia.....	215,205	200,027	13,979	1,547	4,213	435,031
<b>Canada<sup>2</sup>.....</b>	<b>3,322,827</b>	<b>2,363,528</b>	<b>170,743</b>	<b>6,569</b>	<b>36,201</b>	<b>5,900,536</b>
FEMALES						
Prince Edward Island.....	24,748	17,473	3,401	19	178	45,819
Nova Scotia.....	148,474	109,513	21,544	268	2,115	281,918
New Brunswick.....	123,540	84,275	14,040	192	1,256	223,304
Quebec.....	981,890	581,569	85,425	646	9,353	1,658,900
Ontario.....	876,215	826,525	142,731	2,865	18,039	1,866,454
Manitoba.....	176,458	151,105	20,625	654	2,818	351,665
Saskatchewan.....	221,557	175,112	18,965	381	2,414	418,429
Alberta.....	186,215	161,953	17,963	717	2,850	369,711
British Columbia.....	165,064	181,932	29,235	1,718	4,878	382,830
<b>Canada<sup>2</sup>.....</b>	<b>2,907,741</b>	<b>2,292,478</b>	<b>354,378</b>	<b>7,463</b>	<b>43,936</b>	<b>5,606,119</b>

<sup>1</sup> Includes persons with conjugal condition not stated.

<sup>2</sup> Includes Yukon and N.W.T.

## Leading Religious Denominations, by Provinces, 1941

Province or Territory	Roman Catholic <sup>1</sup>	United Church of Canada	Anglican	Presbyterian	Baptist	Lutheran	Jewish	Greek Orthodox
P.E.I.....	42,743	24,005	5,739	14,724	5,443	45	18	10
N.S.....	188,944	124,301	103,393	47,415	89,272	9,104	2,167	347
N.B.....	220,454	63,268	55,155	15,382	88,766	870	1,196	85
Que.....	2,894,621	100,196	162,056	56,086	12,303	7,081	65,683	12,040
Ont.....	882,369	1,073,425	815,413	433,708	192,915	104,111	69,217	28,383
Man.....	203,259	194,001	125,076	43,073	13,267	48,213	18,715	20,777
Sask.....	243,734	230,495	117,674	54,856	19,460	104,717	4,076	37,699
Alta.....	191,343	193,664	113,279	68,910	32,268	84,630	4,052	34,991
B.C.....	113,282	200,817	245,531	94,300	29,780	41,772	3,235	5,198
<b>Canada<sup>2</sup>..</b>	<b>4,986,552</b>	<b>2,204,875</b>	<b>1,751,188</b>	<b>829,147</b>	<b>483,592</b>	<b>401,153</b>	<b>168,367</b>	<b>139,629</b>

<sup>1</sup> Includes Greek Catholic.

<sup>2</sup> Includes Yukon and N.W.T.

**Gainfully Occupied Males and Females, 14 Years of Age or Over,  
by Occupation Groups, 1941**

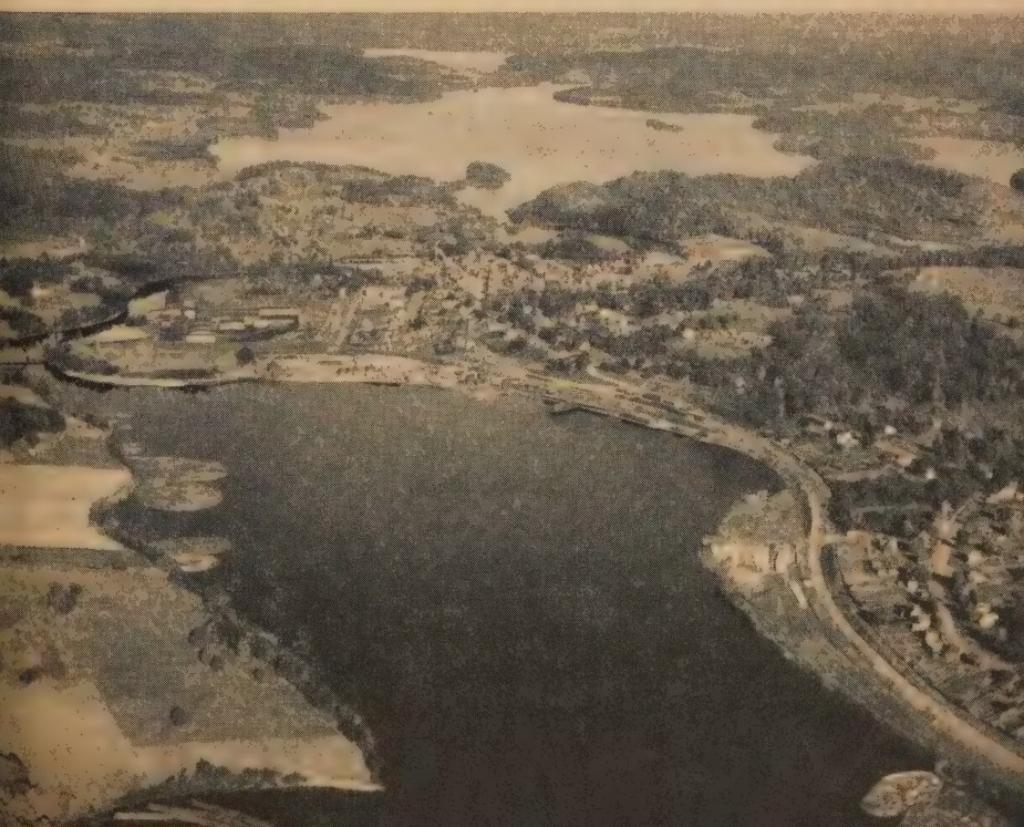
(Exclusive of Yukon and the Northwest Territories)

Occupation Group	Males			Females	
	Including Active Service <sup>1</sup>	Not Including Active Service	P.C. of Total <sup>2</sup>	No.	P.C. of Total
Agriculture.....	1,104,579	1,064,847	31·7	18,969	2·3
Fishing, trapping and logging.....	138,460	131,374	3·9	326	3
Mining, quarrying.....	77,909	71,861	2·1	25	3
Manufacturing.....	615,284	573,574	17·1	129,588	15·6
Construction.....	215,333	202,509	6·0	339	3
Transportation.....	278,402	254,591	7·6	14,065	1·7
Trade.....	292,910	273,059	8·1	82,020	9·8
Finance, insurance.....	33,104	30,576	0·9	816	0·1
Service.....	339,307	316,313	9·4	418,111	50·2
Clerical.....	204,666	182,823	5·4	155,208	18·6
Labourers <sup>4</sup> .....	273,925	251,889	7·5	11,655	1·4
Not stated.....	39,166	9,695	0·3	1,718	0·2
<b>All Occupations.....</b>	<b>3,613,045</b>	<b>3,363,111</b>	<b>100·0</b>	<b>832,840</b>	<b>100·0</b>

<sup>1</sup> Includes only males on Active Service with a gainful occupation prior to enlistment.

<sup>2</sup> Based on column 2.      <sup>3</sup> Less than 0·05 p.c.      <sup>4</sup> Does not include agricultural, fishing, logging or mining labourers.

*Huntsville, with its trim homes and tourist cabins, is the gateway to Ontario's vast hunting and fishing hinterland.*



## Buildings, Dwellings, Households and Families, by Provinces, 1941

Province	Buildings <sup>1</sup>	Dwellings		House-holds	Families	Persons per—		
		Occupied	Vacant			Dwelling	House-hold	Family
P.E.I. ....	19,719	20,236	753	20,432	19,590	4.70	4.65	4.19
N.S. ....	114,451	124,396	3,840	128,641	123,561	4.65	4.49	4.04
N.B. ....	83,429	92,703	2,922	94,599	93,479	4.93	4.84	4.32
Que. ....	430,012	650,838	14,321	663,426	647,946	5.12	5.02	4.53
Ont. ....	779,751	916,122	21,464	969,267	909,210	4.13	3.91	3.56
Man. ....	149,206	164,985	2,342	176,942	166,249	4.42	4.12	3.83
Sask. ....	206,291	209,820	6,465	214,939	190,137	4.27	4.17	4.13
Alta. ....	185,585	195,574	4,040	201,796	175,744	4.07	3.95	3.91
B.C. ....	207,120	223,295	5,861	236,047	199,383	3.66	3.46	3.36
Canada ..	2,181,564	2,597,969	62,008	2,706,089	2,525,299	4.42	4.25	3.94

<sup>1</sup> Used for habitation only.

**Annual Estimates of Population.**—The exact number of the population of Canada given at ten-year intervals by the Census is supplemented by estimates for intervening years. These are essential for the calculation of per capita figures in production and trade, and particularly for use as a base in birth and death comparisons. At every census the previous post-censal data are adjusted to the newly recorded population figures.

## Estimates of the Population, by Provinces, 1942-48

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W. T.	Canada
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
1942....	90	591	464	3,390	3,884	724	848	776	870	17	11,654
1943....	91	607	463	3,457	3,917	726	842	792	900	17	11,812
1944....	91	612	462	3,500	3,965	732	846	818	932	17	11,975
1945....	92	621	468	3,561	4,004	736	845	826	949	17	12,119
1946....	94	612	480	3,630	4,101	727	833	803	1,003	24	12,307
1947....	94	621	491	3,712	4,189	743	842	822	1,044	24	12,582
1948....	93	635	503	3,792	4,297	757	854	846	1,082	24	12,883

## Aboriginal Races

**Indians.**—The Indians of Canada, whose affairs are administered by the Indian Affairs Branch of the Department of Mines and Resources, number 125,686 (according to a Departmental Census taken in 1944). The popular opinion that the race is disappearing is not in accordance with fact. Before the advent of the European, the number of Indians undoubtedly was larger, though there is little reliable information on the subject. The trend during this twentieth century, however, has been fairly steadily upward. The distribution among the provinces and territories is as follows: Prince Edward Island, 266; Nova Scotia, 2,364; New Brunswick, 2,047; Quebec, 15,194; Ontario, 32,421; Manitoba, 15,933; Saskatchewan, 14,158; Alberta, 12,441; British Columbia, 25,515; Yukon, 1,531; and the Northwest Territories, 3,816. These are the Indians under Federal administration. There

*Almost half the Indians of Canada still depend on the trapping of fur-bearing animals for their livelihood. This Cree Indian has found a fox caught in one of his traps.*



are many others who, under the provisions of the Indian Act, have become enfranchised and have acquired the full status of citizenship; these have ceased to be Indians under the law.

The rapid spread of settlement in Canada made it necessary to take effective measures to protect the interests of the Indians. As the various sections of the country were opened up, treaties were entered into whereby the Indians ceded to the Crown their aboriginal title and interest in the country in consideration of which the Crown agreed to set aside adequate land reserves, to make cash grants, provide per capita annuities, give assistance in agriculture, stock-raising, hunting, trapping, etc., as particular circumstances might require, provide education for Indian children, and otherwise safeguard the interests of the Indian population. Accordingly, reserves have been set aside for the various bands of Indians throughout Canada. These are grouped for administration into Indian agencies, and the Indians located on them are under the supervision of local superintendents of the Department of Mines and Resources. In addition to the agent, the local staff usually includes a clerk, farming instructor, field matron, constable, stockman, etc., according to the special requirements of the agency.

The total area of Indian Reserves was 5,570,778 acres as at Mar. 31, 1947, 25·7 p.c. of which was in Alberta, 23·9 p.c. in Ontario and 21·8 p.c. in Saskatchewan. Of the total, 232,185 acres were under cultivation, 2,795,883 acres being uncleared. The Government has undertaken a number of special projects for the various sections of the Indian population in accordance with their needs, including fur development enterprises in selected areas, the promotion of handicraft, and planned agricultural operations.

Educational work carried on by the Federal Government for the benefit of Indians is very extensive. In the school year 1946-47 there were 347 Indian schools in operation with an enrolment of 19,622 and an average attendance of 15,641. Continuation and high-school work is taught in several of the day and residential schools and tuition grants are made for



An Eskimo mother receives instruction on the proper feeding of her child at a Mission Hospital at Pangnirtung, N.W.T.

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Indian pupils attending universities, Normal schools, technical schools and other institutions of learning.

The Indian Health Services, under the jurisdiction of the Department of National Health and Welfare, provide hospitals, sanatoria, nursing stations, professional, medical and nursing personnel and auxiliary services. In

the year 1946-47 the Indian Health Services employed 37 full-time physicians, 92 nurses, 27 field nurses and matrons and a considerable number of physicians on a part-time basis. Surveys are made to detect diseases in their early stages and immunization programs are organized to combat preventable diseases.

Under the Family Allowances Act 17,682 Indian families were registered in February, 1947, some 49,301 children being represented. It is estimated that approximately 3,000 eligible Indian children do not receive benefits under the Act, owing to the reluctance of their parents to register.

In 1946, the Federal Government set up a Special Joint Committee of the Senate and the House of Commons to examine and consider the Indian Act. This inquiry was continued throughout the sessions of 1947 and 1948. The Indian Act is being revised in keeping with needs and conditions facing the Indian population of Canada to-day.

**Eskimos.**—Eskimos in Canada are found principally north of the tree-line on the northern fringe of the mainland and around the coasts of many of the islands of the Arctic Archipelago and Hudson Bay. The total Eskimo population, at the time of the Census of 1941, numbered 7,205.

Their social-political organization is a band or group consisting of two or more families, each band containing an outstanding individual who acts as leader. Intercourse between bands is limited mainly to contact with those hunting or trapping in adjoining areas. Each band, following the movements of game and the changing seasons, secures its livelihood in its

own district, which has no definite boundaries. The sea furnishes most of the needs of those living near the coast, while those living farther inland subsist mainly on the herds of caribou. Seal, walrus, arctic char (sea trout), cod, caribou and white fox, the pelts of which they use in trade, loom largest in importance in their economy.

The commercial life of the Eskimos has taught them that the wishes of the individual must be subordinate to the welfare of the majority and this, together with their inborn good nature, has made them easy to deal with. The Government of Canada, through the Lands and Development Services Branch of the Department of Mines and Resources, has put forth continuous and unremitting efforts to preserve the natural resources of the country so that Eskimos may continue to be independent, self-reliant and self-supporting. Contact with them is maintained through permanent stations, at a number of which medical officers are located, by patrols of the Royal Canadian Mounted Police, radio-communication, the Canadian Eastern Arctic Patrol and by auxiliary motor vessels. Medical care and hospitalization of Eskimos, as is the case with the Indians, are functions of the Department of National Health and Welfare.

### *Immigration*

Canada's immigration policy, greatly restricted during the depression years, has been considerably broadened since the end of the Second World War. A program of selective immigration in numbers in keeping with Canada's economic conditions and absorptive capacity is being followed. Skilled industrial workers, labourers and agriculturists are encouraged to come as are relatives of Canadian citizens or residents who have already established themselves in this country. By arrangement with the International Refugee Organization, specially selected groups from displaced persons camps in Europe are admitted for employment at work that has been pre-arranged. This system, carried on with the co-operation of the Department of Labour, has proved of tremendous importance in the assimilation of these newcomers. Security and understanding help should do much to develop in them an affection and loyalty for their new homeland.

During the year ended Mar. 31, 1948, 79,194 immigrants entered Canada as compared with 66,990 in the previous fiscal year and 31,081 in 1945-46. Of the 1947-48 total, 44,788 were English, Scottish, Irish and Welsh from overseas, 9,034 were from the United States and 25,372 were from other countries. Comparable figures for the previous fiscal year were 20,162, 11,410 and 7,604, respectively.

The improvement in transportation services, both air and water, resulted in a marked increase in arrivals during the first part of 1948. From Jan. 1 to Sept. 30, 91,207 immigrants arrived, a figure considerably higher than that for the whole of 1947. Of these, 34,588 were from the British Isles, an increase of 47.0 p.c. over the figure for the same period of 1947. A similar increase was recorded in arrivals from northern European countries. Of the 8,763 Dutch immigrants who entered, about 6,600 came to Canada under the joint Dutch-Canadian scheme by which agriculturists and their families travel to this country with the ultimate aim of purchasing their own farms.

Up to Oct. 31, 1948, 46,416 displaced persons had reached Canada, of whom 20,410 were admitted as close relatives of residents of this country.

More than 36,000 of the 41,000 applications received under this plan had been investigated and some 924 orphan children had been placed in homes throughout the country.

Under the pre-arranged employment plan, 25,082 displaced persons had been brought out in response to requests from industries all across Canada, including: farmers, 3,024; family farm groups, 897; farmers' dependents, 284; woods-workers, 3,599; textile workers, 383; domestics (married couples), 250; female domestics, 5,712; miners, 2,263; garment workers, 1,922; garment workers' dependents, 1,414; railway workers, 1,912; hydro workers, 1,911; building construction workers, 714; steel and foundry workers, 306; furriers, 283; shoe workers 84; and other, 124.

Figures for tourists who, although not immigrants, submit to immigration examination at the International Boundary and ocean ports, showed a total entry for the year ended Mar. 31, 1948, of 37,492,000 people, made up of 23,305,000 visitors from other countries, 14,178,000 Canadians returning from trips to other countries, and 9,000 Canadians returning after residing in the United States. Comparable figures for the previous year were 20,622,000 visitors, 14,065,000 returning residents, and 6,300 returned Canadians. The figures pertaining to Canadians returning from visits to other countries include persons who crossed and recrossed the Boundary frequently.

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*Girls, who have come to Canada from displaced persons camps in Europe, being interviewed by officers of the National Employment Service. They are to serve as domestics in various Canadian centres for one year.*



## ★ Vital Statistics

Vital statistics for Canada—data concerning births, stillbirths, marriages and deaths—are published by the Dominion Bureau of Statistics under authority of the Statistics Act, 1918. As provided under this Act, and as the result of two Dominion-Provincial conferences on vital statistics held at Ottawa, in June and December, 1918, a plan was devised whereby the Dominion Bureau of Statistics and the vital statistics authority in each province would co-operate in the production of the national figures. Under this arrangement, while registration was to be carried out as previously by the provincial authorities, the legislation of each province was made to conform in essential features—one of which was compulsory registration—to a model Vital Statistics Act adopted by the 1918 Conferences.

Since the initiation of this collaborative national system, material progress has been made in modifying and improving registration techniques and procedures. Of particular interest in this regard was the revision in 1935 of the medical certificate of death which is an integral part of the death registration form.

Conferences on vital statistics held in 1943, 1944 and 1948 were attended by the provincial and federal officials, by representatives of other departments of government and interested national agencies. Topics discussed at these conferences covered such widely diversified problems as: registration affecting Indians; interprovincial exchange of vital records; establishment of standards for delayed registration of births; definition of vital statistics terms; standards of certification; divorce and adoption records; and revision of the model Vital Statistics Act.

The Dominion-Provincial Conference of 1944 had as its immediate objective the formulation of a speedy, accurate and efficient method of verification of the facts of birth of all children in Canada under the age of 16, required for the implementation of a national scheme of family allowances. The agreement arising out of this conference went into effect on July 1, 1945.

### *Births, Deaths and Marriages, by Provinces*

Province	Births			Deaths			Marriages		
	1947 <sup>1</sup>		Avg. 1926- 30	1947 <sup>1</sup>		Avg. 1926- 30	1947 <sup>1</sup>		Avg. 1926- 30
	No.	Rate per M	Rate per M	No.	Rate per M	Rate per M	No.	Rate per M	Rate per M
P.E.I.....	2,991	31.8	19.7	1,020	10.9	11.0	676	7.2	5.4
N.S.....	19,265	31.0	21.4	6,009	9.7	12.4	5,861	9.4	6.3
N.B.....	17,772	36.2	25.8	4,832	9.8	12.5	5,189	10.6	7.4
Que.....	115,768	31.2	30.5	33,669	9.1	13.5	35,496	9.6	6.9
Ont.....	108,851	26.0	21.0	41,607	9.9	11.2	44,055	10.5	7.8
Man.....	20,410	27.5	21.7	6,773	9.1	8.3	7,712	10.4	7.5
Sask.....	23,333	27.7	24.7	6,608	7.8	7.3	7,674	9.1	7.0
Alta.....	24,630	30.0	24.2	6,539	8.0	8.4	8,796	10.7	8.0
B.C.....	26,283	25.2	16.2	10,611	10.2	9.3	11,852	11.4	7.5
Canada <sup>2</sup> .....	359,303	28.6	24.1	117,668	9.4	11.1	127,311	10.1	7.3

<sup>1</sup> Preliminary figures.

<sup>2</sup> Exclusive of Yukon and the Northwest Territories.



This agreement also provided for the establishment of a Vital Statistics Council which, in its annual sessions, functions as a clearing-house for problems of registration and vital statistics, and which has been the means of increasing and consolidating the close co-operation of the provincial and national vital statistics offices. It comprises one representative for each province, one for Yukon and the Northwest Territories, and the Directors of the Health and Welfare and Census Divisions of the Dominion Bureau of Statistics, with the Dominion Statistician as Chairman.

**Births.**—From 1926 to 1930 the number of births showed an upward trend, rising from 232,750 to 243,495. This movement was then reversed until 1937 when the number of births reached its lowest point at 220,235. In 1938 it increased again and in 1939 was 229,468. Because of the growing population, the rate of

births per 1,000 population

showed a steeper decline, falling from 23·9 in 1930 to 20·0 in 1937. In 1938 it rose slightly to 20·6 and in 1939 it was 20·4. The influence of the War is reflected in the sharp increase that has taken place since 1939. In 1941 the number of births was 255,224 and the rate 22·2. The preliminary figures for 1947 show 359,303 births and a rate of 28·6, the highest birth rate recorded since 1926.

Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that an accurate ratio of male to female births has become one of the criteria of complete registration. The number of males to every 1,000 females born in Canada in 1941-46 has varied between 1,057 and 1,067.

Hospitalization and medical attendance at birth have increased greatly in recent years. In 1926-30 only 22 p.c. of live births occurred in hospitals, while in 1946 the proportion was 68 p.c.

**Deaths.**—The annual death rate in Canada averages less than 10 per 1,000 population, which is fairly low in comparison with other countries of the world.

The ten leading causes of death accounted for about 75 p.c. of the total deaths in Canada in 1946. Diseases of the heart, considered as a group, was the most important cause and cancer second. The death rate from cancer has advanced almost every year from 1926 to 1946, the increase in that period being from 80·7 to 120·2 per 100,000 population. This increase in cancer deaths is rather misleading. It is due in part to improvement in diagnostic and X-ray techniques which enable the causes of death to be identified, instead of being attributed to other or unknown causes, but is mainly due to the ageing of the population. Pneumonia, which was in third place in 1926 with a rate of 89·3 per 100,000 population, dropped in 1946 to seventh place with a rate of 46·1.

*Maternal Mortality.*—The average rate for the five-year period 1926-30 was 5·7 per 1,000 live births. Since that time there has been a marked improvement. The rate decreased to 4·0 in 1940 and reached the low figure of 1·5 in 1947.

*Infant Mortality.*—In Canada during recent years this rate has shown a substantial reduction, falling from 102 per 1,000 live births in 1926 to 60 in 1941 and 54 in 1942 and 1943. In 1947, the rate was 45 per 1,000, the lowest on record.

#### *Infant Deaths and Death Rates, by Provinces*

Province	Infant Deaths under One Year					Rates per 1,000 Live Births				
	1926	1944	1945	1946	1947 <sup>1</sup>	1926	1944	1945	1946	1947 <sup>1</sup>
P.E.I.....	123	102	102	97	135	70	45	45	35	45
N.S.....	882	838	823	822	840	80	54	53	46	44
N.B.....	1,095	1,035	966	1,066	1,041	106	77	71	66	59
Que.....	11,666	6,918	6,464	6,110	6,574	142	68	62	55	57
Ont.....	5,302	3,346	3,209	3,653	3,912	78	43	41	37	36
Man.....	1,122	786	781	885	931	77	49	48	47	46
Sask.....	1,681	858	824	1,004	1,019	81	47	44	.47	44
Alta.....	1,233	889	862	945	914	85	46	43	43	37
B.C.....	588	767	792	852	958	58	40	42	38	36
Canada <sup>2</sup> ....	23,692	15,539	14,823	15,434	16,324	102	55	51	47	45

<sup>1</sup> Preliminary figures.

<sup>2</sup> Exclusive of Yukon and the Northwest Territories.

**Natural Increase.**—In 1926 the rate of natural increase was 13·3 per 1,000 population. During the early 1930's, when the birth rate was declining rapidly, the death rate was also declining, but more slowly. In 1939, the death rate was 9·7, and the rate of natural increase 10·7. Since the beginning of the War, the natural increase rate has, of course, risen substantially. It was 12·2 in 1941, 14·0 in 1943 and, according to the preliminary figures, it stood at 19·2 in 1947.

**Marriages.**—In 1929 marriages in Canada numbered 77,288. They had increased steadily since 1926. The depression exercised a marked influence on marriages and the marriage rate, causing a steep downward movement until 1932, when the number of marriages was 62,531. From 1933 to 1942 a fairly steady increase took place, so that in 1942 marriages numbered 127,372, and the rate per 1,000 population was 10·9. For the years 1943 to 1945 the numbers and rates were somewhat lower. During 1946, marriages numbered 134,088, the highest ever recorded, and the rate was 10·9. Marriages in 1947 numbered 127,311 and the rate was 10·1.



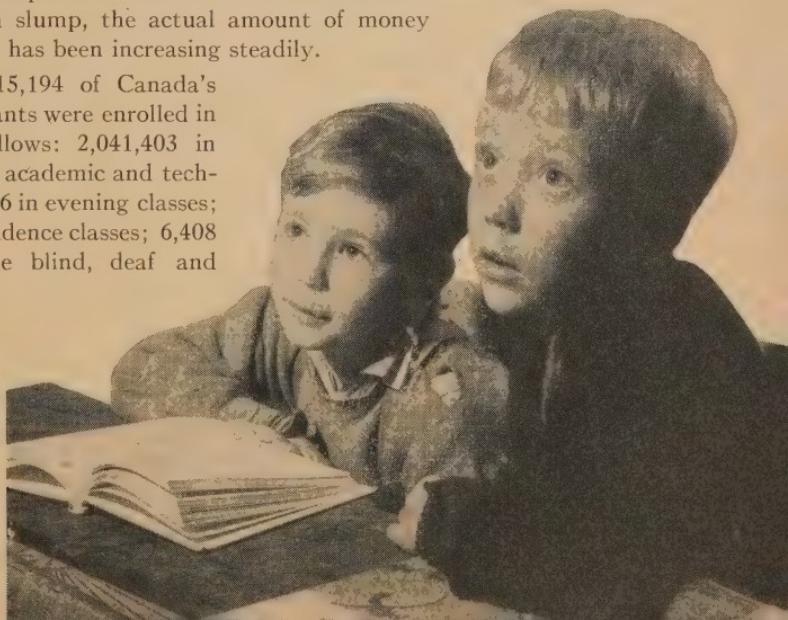
# Education Science Culture

UNDER the British North America Act, the Provincial Governments are assigned the responsibility for the organization of formal education within their borders, with a few reservations. Education of the native Indian population is administered by the Indian Affairs Branch of the Federal Department of Mines and Resources (see p. 47) and schools in the Northwest Territories by the Territorial Council of the same Department. For the most part, the schools in the Northwest Territories are residential and day schools in charge of the Roman Catholic Church and the Church of England. There is a public school maintained by taxes at Yellowknife and a non-denominational school maintained by fees at Fort Smith, both receiving Federal Government grants.

The Department of National Defence is responsible for the training of those who have entered the naval, military and air branches of the defence services of Canada. The Royal Military College at Kingston and H.M.C.S. ROYAL ROADS on the West Coast train officer cadets. Branches of the Canadian Officers Training Corps may be established on request in any university that can provide suitable facilities. The Government's post-war rehabilitation program has included assistance to veterans wishing to attend university or to obtain vocational training. About 50,000 veterans have been assisted in pursuing undergraduate or graduate studies and about 100,000 have received vocational training.

Education fills an important role in the Canadian economy. In 1946 about 2·8 p.c. of the national income was expended on public education. While this proportion was below the 4·2 p.c. spent in 1929 and decidedly below the 7·8 p.c. required in 1936 when national income was experiencing a slump, the actual amount of money spent on education has been increasing steadily.

In 1946, 2,515,194 of Canada's 12,307,000 inhabitants were enrolled in the schools as follows: 2,041,403 in publicly supported academic and technical schools; 98,016 in evening classes; 37,986 in correspondence classes; 6,408 in schools for the blind, deaf and



imentally defective; 8,355 in normal schools; 109,114 in privately controlled academic schools; 157,120 in universities of whom 92,441 were taking courses of university standard; 37,987 in business-training schools; and 18,805 in the Dominion Indian schools. Of the gainfully employed 14 years of age or over, 2.5 p.c. were engaged in instructing these pupils on a full-time basis.

**Trends in Administration of Elementary and Secondary Schools.**—Canada had, in 1948, some 21,000 schools of which 15,000 were single-teacher, rural units. Almost half the population lives in rural areas so that many of Canada's imminent educational problems are concerned with rural education.

Since the turn of the century there have been many attempts to consolidate the rural schools and during the past 12 years the administration of rural schools has undergone considerable change in most provinces. Before that time Manitoba organized 101 consolidated school districts including Minota, a municipal school district. In line with the more recent trend to form large municipal units, Manitoba's legislature provided for the establishment of two experimental larger areas. One, the Dauphin-Ochre River school area, was formed in 1947 and a composite high school established with options in academic subjects, home economics, industrial and commercial subjects.

Alberta took the lead in the organization of larger school units. It is now completely organized into 57 units of which four, due to topographical necessity, are small. The average division covers some 2,000 square miles with 70 teachers and 1,500 pupils. Originally, only rural districts were included but many villages and towns have entered and more will follow. Of recent years emphasis has been placed on establishing rural high schools, providing dormitories where necessary or supplying school vans for transportation.

The Government of British Columbia, following the Cameron Report, reorganized its 650 school districts into 75 larger administration areas each under a single school board elected by the unit as a whole. All cities, towns, rural schools, etc., are included except 15 isolated schools which are continued as units. A uniform assessment and tax rate supplemented by provincial grants ensures a stated minimum for all schools but most areas set a higher rate and provide greater services.

In Saskatchewan, in 1945, it was proposed to form 60 units each consisting of some 80 rural, hamlet or village school districts. By 1948, 44 of these had been formed of 75 p.c. of the school districts. Local boards are retained as in Alberta and towns may join if they wish.

In Ontario, township councils may form township school areas of two or more schools under one board of trustees. They may add to an area already formed or form one overlapping township lines. Some 3,070 school districts, or 53 p.c. of the former school sections of the Province, have been dissolved to become part of the township areas. A second trend is towards the formation of high-school areas with composite-type schools of which more than 100 are now organized. Besides academic courses these have options in general shop, home economics, commercial work and agriculture.

In Quebec, ten county boards have been formed among the Protestant schools. Education in the Roman Catholic schools is usually organized with the parish as the unit for school administration.

*w schools are designed from the standpoint of greater efficiency in teaching and in learning. In this small elementary school, good lighting is provided by the use of glass brick as well as clear glass and each desk is placed at a 50-degree angle from the window. "Blackboards" are white and interior walls of building blocks are left uncovered and rough to absorb sound.*



Nova Scotia plans to consolidate available facilities to form some 75 rural and urban high school areas throughout the Province, offering a variety of curricula and accommodating all junior and senior high school pupils. From 1942-46 municipal school finance units were organized on a county basis with each including about 100 rural schools.

In New Brunswick, for purposes of finance, 1,350 administrative units were reduced to 37 embracing 15 counties and 22 urban centres. Plans call for about 50 regional composite high schools of which 25 have been approved and are presently under construction. Each region is to have one school board which will be responsible for a composite high school and the conveyance of 200 or more pupils. Each regional high school is to have a six-acre playground, an auditorium and gymnasium, and a school and community library and is to function as a community centre.

Prince Edward Island continues to operate its 458 schools under the district system although considerable ground work has been done to effect a more efficient organization.

**Teachers, Teachers' Salaries and Tenure.**—There are indications that the crisis for providing teachers for the schools has passed, though it is probable that a certain shortage of qualified teachers will be felt in rural schools for some years yet. Just as subsistence-level salaries in some cases drove teachers to seek other occupations at the first opportunity, so increased salaries are credited with attracting more teachers to the profession. Other factors include added security from organization into larger units, salary schedules and the general employment situation. In Alberta an attempt was made to raise the standard of teaching by giving all teacher-training in university and having it count towards a degree in Education. In Manitoba it has been made financially possible for any pupil to attend a residential normal school, thus solving boarding and related problems. Elsewhere prospective applicants have been encouraged to enter the profession.

Teachers' salaries depend to a considerable extent on supply and demand but are related to cost of living, national income and the public interest. Since 1937 they have risen appreciably as have the cost of living and salaries elsewhere. The average salary paid in city schools was \$1,613 in 1939 and



*A prairie schoolhouse.*

\$1,926 in 1946. It was \$960 for town and village schools in 1939 and \$1,388 in 1946. On the average, salaries, including those paid in rural schools, increased from \$854 to \$1,308.

About three-quarters of the teachers in all publicly controlled schools, are female. The percentage of males increased during the depression years but dropped considerably during the War and, despite an increase since 1945, it is not yet back to pre-war proportions. In 1946 male teachers made up 12 p.c. of the total in the Maritimes, 32 p.c. in Ontario and Saskatchewan, 23 p.c. in Manitoba, 35 p.c. in Alberta and 47 p.c. in British Columbia. In Quebec, in 1945, apart from 8,212 nuns and 2,355 brothers, 17 p.c. of the teachers were males.

Rural school teachers are a comparatively transient group as they move from one school to another, or out of the teaching profession, after two years or less. From 1939 to 1946 average years of experience for this group dropped from 4.7 years to 3.5 years, and length of time in present school dropped from 2.8 years to 2.5 years. Teachers in city schools are relatively stable. Their average experience increased from 15.7 to 17.7 years from 1939 to 1946 and they seldom changed positions.

The percentage of fully qualified teachers, that is teachers with senior matriculation and normal school training or better, remained fairly constant at around 23 p.c. But the percentage with one year less schooling, or second-class teachers, dropped from 30 to 19 p.c. The number with lower or special certificates increased slightly while the difference was made up of 5,273 temporary or permit teachers representing about one-tenth of all teachers.

**School Financing.**—Publicly controlled elementary and secondary schools receive their income largely from local taxes and provincial grants. Grants may be based on "number of rooms" and "average daily attendance" with some consideration for the teacher's certificate. They may be supplemented by special grants for libraries, equipment, school buildings, music, etc. Equalization funds may be established to ensure a minimum standard in school districts of low assessment.

Cost of running the schools per pupil enrolled varied from province to province in 1946. It was highest in British Columbia at \$116, followed by Ontario at \$114, Alberta and Saskatchewan at \$113, Manitoba at \$102 and below \$100 in the others. The average was \$105.

Per capita expenditures in Saskatchewan and Alberta were the highest. Ontario and Manitoba came next followed by British Columbia, Nova Scotia, New Brunswick, Quebec and Prince Edward Island.

Percentage of cost paid by the Government in 1946 varied from 59 to 14, with Prince Edward Island leading followed in order by Ontario, Nova Scotia, British Columbia, New Brunswick, Saskatchewan, Alberta, Quebec and Manitoba.

Expenditure on teachers' salaries increased to reach a total of \$82,655,000 in 1946; ordinary expenditures increased at a similar rate while cost of new buildings in 1946 was more than double the 1944 figure for those provinces where data were available.

**Vocational Education.**—A Technical Education Act in 1919 provided for \$1,000,000 a year for ten years to be distributed among the provinces provided that the amount allocated would be matched by an equal amount from the province. Ontario qualified for its full share within ten years, the others have since taken advantage of the offer.

There are at present some 38 special publicly controlled technical schools in Canada, including vocational high schools in most large cities and such advanced schools as the Calgary Provincial Institute of Technology and Art. Eight of these are located in Quebec, 18 in Ontario, three in Saskatchewan, two each in New Brunswick, Manitoba, Alberta and British Columbia, respectively, and one in Nova Scotia. New technical schools, such as the Technical Vocational High School in Winnipeg, will soon be opened. Other special schools not considered technical include: 11 commercial secondary schools, five of which are found in Ontario and two each in Quebec, Alberta and British Columbia, respectively; 31 schools of agriculture, 22 of which are in Quebec and some of which are affiliated to or form a part of a university; and seven schools of fine arts.

Besides the normal expansion in technical education which might be expected following the renewed interest during the war years, the introduction of composite high schools whether in towns and cities or rural high schools



*A modern high school at Edmonton, Alberta.*

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has influenced the trend towards combining technical education with more theoretical academic education usually found in high schools.

**Private Schools.**—Private schools are those which are not managed by publicly elected or publicly appointed boards and which do not, outside of Quebec, receive financial aid from public sources. Such schools enroll about 10 p.c. of the elementary and secondary school population in Quebec and from 2 p.c. to 4 p.c. in the other provinces. About half of the institutions outside of Quebec are Roman Catholic, 21 p.c. Protestant, 1 p.c. Jewish and 28 p.c. non-denominational. The majority are residential. Enrolment increased during the war years with a large proportion in grades IX, X and XI. These institutions are financed largely by fees, charity, and legacies and range from independent institutions to church schools preparing members for service, and from inexpensive institutions where everything is provided to relatively exclusive schools charging fees of \$800 to \$1,000 a year.

A number of private institutions commonly known as "business colleges" provide young people with some training for business positions usually within one year. In 1946 there were some 160 such institutions, half of which were in Ontario. Enrolment was about 30,000 of which one-third were full-time students and 71 p.c. girls. Ages ranged from 14 up, with age 18 most common.

Other private schools for the teaching of various trades are located in the larger cities. Most provinces have passed legislation enabling them to regulate these schools and to ensure that they are properly staffed and equipped.

**Adult Education.**—The Canadian Association for Adult Education was formed in 1935 to co-ordinate the work of the major adult educational agencies in Canada; co-operate with other national educational organizations; provide ideas and motivation and make available existing aids and supplies; conduct experiments and research, etc.

Many of the universities conduct extension courses in summer and winter. Outstanding courses are offered in art, drama, leadership, industrial relations, community co-operative actions, etc. Several Departments of Education have appointed Directors of Adult Education and assist the public schools in offering evening courses in a wide variety of subjects including languages, technical courses, hobby crafts, drama, art, journalism and public speaking. Women's clubs and other organizations in many instances aid in more informal education.

**Higher Education.**—Statistical data on Canadian universities and colleges, available on a comparable basis for 26 years, show variance in the tempo of progress caused by two world wars and the intervening economic depression. Statistics on enrolment for the years 1920-25 and 1941-46 are abnormal, the first period showing a declining inflation after the First World War and the period 1941-46 a progressively higher increase each year. With due allowance for these variants a comparison of the statistics for 1921, the second year after the cessation of war, and 1946 presents some interesting features. Full-time undergraduate enrolment in 1920-21 was 22,234; in 1946 it was 61,529. In 1920-21 there were 3,383 women registered; in 1946 the number of women had increased to 12,531. The marked preference for courses in Applied Science that has characterized registration in Canadian universities since the early 1900's was emphasized in the two post-war periods. In 1920-21 enrolment in Applied Science including Engineering, Architecture and Forestry was 3,006 or 13.5 p.c. of the total undergraduate enrolment; in 1946 it was 11,602 which represents 19 p.c. of the total for that year. The Schools of Medicine in 1920-21 reported 3,236 students, almost 15 p.c. of the total enrolment, and the registration for 1946, 3,200 students or only 5.2 p.c. of the total. This figure, compared with the population increase during 1921-41, is significant of the increasing costs of medical training and a definite need of more training facilities. The latter factor is being met by the establishment of new faculties of Medicine and new building programs. Dentistry as a profession has lost ground during the 26 years under review. Enrolment dropped from 1,276 in 1920-21 to its lowest point, 350 in 1932. Since that time it has increased to 753 in 1946. Scientific Agriculture increased from 856 in 1921 to 2,198 in 1946, and Veterinary Science from 116 in 1921 to 395 in 1946. Theology, Law and Pharmacy recorded little change in the two post-war periods but the latter two professions show considerable fluctuation in the years between the wars.

The professions normally considered limited to women students record an increased enrolment significant of the social progress of the country.

Enrolment in degree courses in Home Economics and Household Science has increased ten-fold since 1921 when there were 100 students enrolled. The records for 1946 report 1,100 women in these courses. In 1921 Physical Education was a diploma course restricted almost entirely to women. Within the past ten years degree courses have been designed including Physical Education and Health Education at McGill, Queen's, Toronto and the University of British Columbia. These courses are attractive to men and have increased the enrolment from 22 women in 1921 to 312 students in 1946 including 134 men. Students registered in social work numbered 85 in 1921 and increased to 300 in 1946. Between the wars two new groups were added to the professional courses, i.e., Librarians and Therapists. In both cases enrolment largely consists of women.

The following figures represent for five-year intervals between 1921 and 1946 the progress in full-time enrolment attained by the universities and colleges:—

	<u>1921</u>	<u>1926</u>	<u>1931</u>	<u>1936</u>	<u>1941</u>	<u>1946</u>
Arts, Science and Commerce	9,444	13,944	17,711	18,557	18,824	34,421
Professional schools.....	12,790	10,462	13,609	13,750	15,669	27,108

Statistics on teaching staffs contain some anomalies due to the duplication between faculties and the inclusion of part-time instructors. After screening for such variants the returns for the years represented by the above enrolment figures are as follows:—

	<u>1921</u>	<u>1926</u>	<u>1931</u>	<u>1936</u>	<u>1941</u>	<u>1946</u>
Full-time staff.....	2,133	2,449	2,843	3,044	3,452	4,937
Part-time staff.....	1,352	1,694	2,077	2,144	2,015	2,747

Distributed by the two groups, Arts, Science and Commerce, and Professional Schools the numbers of teachers per hundred full-time undergraduate students are as follows:—

	<u>1921</u>	<u>1926</u>	<u>1931</u>	<u>1936</u>	<u>1941</u>	<u>1946</u>
Arts, Science and Commerce—						
Full-time.....	12	10	10	10	10	7
Part-time.....	3	2	2	3	3	3
Professional Schools—						
Full-time.....	7	9	9	8	10	9
Part-time.....	9	15	13	13	15	9

During the period 1921-46 inclusive, the universities and colleges conferred 153,986 basic degrees or equivalent diplomas on undergraduate students. Deducting the duplications required for entrance into professional courses and a reasonable estimate for other duplications the net number of degrees conferred was approximately 138,100 including 37,300 awarded to women. In the same period 14,946 men and women received post-graduate degrees including some 1,700 Doctoral degrees in course.

Students have been called upon to pay an increasing percentage of the income of universities. The changes reported during the past 25 years by the larger universities are as follows:—

<i>Source of Income</i>	<i>P.C. of Total Income</i>					
	<u>1921</u>	<u>1926</u>	<u>1931</u>	<u>1936</u>	<u>1941</u>	<u>1946</u>
Interest on investments.....	16·4	19·1	16·2	14·7	12·8	9·5
Student fees.....	20·1	21·2	24·0	33·5	32·1	38·0
Government grants.....	49·8	48·7	49·8	40·3	42·4	38·0
Miscellaneous.....	13·7	11·0	10·0	11·5	12·7	14·5

The modern university features practical training, equipping men and women to fulfil tasks in almost every phase of economic and industrial life. For example, present-day problems in connection with the administration, utilization and conservation of Canada's forests have created a demand for trained foresters.



1. Students from the University of Toronto Faculty of Forestry take practical instruction in an 18,000-acre forest maintained by the Ontario Government.



2. Students measuring the girth and estimating the height of a tree, from which its timber content can be determined.



3. Students in the classroom.

\* \* \* \* The NATIONAL MUSEUM



# of CANADA



hibits in the National Museum include accurate reproductions of Canadian wildlife in their natural habitats. These are subjects of great interest on the part of visitors to the museum. Three of the groups are shown: Musk-oxen, which are now found very infrequently in the northern parts of the Dominion; Polar Bear; and Wood Buffalo or Bison being attacked by Northern Timber Wolves. Musk-oxen and Bison are the only native American oxen.

creasing use is being made of National Museum exhibits for educational purposes. School groups attend classes in zoological, ornithological, palaeontological and anthropological subjects as part of their regular curricula. Saturday morning lectures are conducted for children and cover such subjects as natural history, life of the aborigines, natural resources, industries, geography, and travel. The lectures are given again in more extended form for adults.



## Summary Statistics of Education, 1946

Type of School or Course	Institutions	Pupils	Teachers	Expenditures
	No.	No.	No.	\$.
Provincially Controlled Schools—				
Ordinary and technical day schools.....	31,858	2,041,403	70,592	175,618,112
Evening schools.....	410 <sup>1</sup>	98,016	—	423,246
Correspondence courses.....	91	37,986	—	634,352
Special schools.....	21	6,408	499	6,918,781
Normal schools.....	99	8,355	1,019	2,742,125
Privately Controlled Schools—				
Ordinary day schools.....	694	109,114	5,818	} 6,750,000
Business-training schools.....	242	37,987	896	
Dominion Indian Schools.....	346	18,805	427	2,298,321
Universities and Colleges—				
Preparatory courses.....	83	29,143	1,581	} 49,716,612
Courses of university standard.....	162	92,441	5,203	
Other courses.....	22 <sup>2</sup>	35,536	—	
<b>Totals.....</b>	<b>33,527</b>	<b>2,515,194</b>	<b>86,035</b>	<b>245,101,549</b>

<sup>1</sup> Omitted from total since these courses are conducted by day schools of music and nursing, not of university grade, affiliated with universities. extension courses.

<sup>2</sup> Schools

<sup>3</sup> Includes

## Science and Research

The war years demonstrated in the most forceful manner the importance of scientific research in the life of the modern nation, its necessity in fact for survival. The principal lesson to be learned from these and earlier years has been expressed by one writer, Professor J. B. Brebner, as follows: "Canada needs to detect, train, encourage, and retain every scholar she can find, for they will constitute the principal group that will keep Canada up with a rapidly changing world, that will bring Canada brains and experience to bear on Canadian problems, and that will pass on to youth and to the nation at large the vital tradition from the past".

The field of scientific research in Canada is exceedingly broad. Certain Federal and Provincial Government Departments, as well as many private industrial concerns, maintain trained permanent scientific staffs for investigation and research in their own fields. The universities have shown great initiative in research but, with the limited facilities at their disposal, the task of carrying their discoveries to a conclusion is not always easy. However, Government and industrial laboratories are often able to pick up where the universities leave off. A special field of research is also covered by such institutions as the Ontario Research Foundation, the Banting Research Foundation and the Rockefeller Foundation.

**The National Research Council.**—Serving Canada as a central co-ordinating body for the organization and guidance of scientific research the National Research Council of Canada, established in 1916, now has a staff of more than 2,600 persons, working in several different centres, and with headquarters laboratories in the National Research Building, Sussex Street, Ottawa.

The great atomic energy plant is located at Chalk River, Ont., 120 miles west of Ottawa. A Prairie Regional Laboratory is operated at the University of Saskatchewan, Saskatoon, and a Maritime Regional Laboratory is under

National Research Council workers at the Chalk River atomic energy plant conducting experiments in remote control extraction of fission product.



construction at Dalhousie University, Halifax. [Laboratories for biology, chemistry, physics, radio and electrical engineering are housed in the National Research Building. The Radio and Electrical Engineering Division has a field station eight miles out of Ottawa, and a radar station at Scarboro, Ont., from which the motor vessel *Radel* operates during the summer months, conducting studies on the use of merchant marine radar and similar aids to navigation.

On a 120-acre site five miles east of Ottawa, the aeronautical, hydraulic, structures, low-temperature, engine, gasoline and oil laboratories are grouped in several modern buildings. Here also are located the general engineering laboratories, wood- and metal-working shops, and the laboratories of the Division of Building Research.

The Council operates under Federal Government authority vested in the Committee of the Privy Council for Scientific and Industrial Research. It consists of twenty members including a president and two vice-presidents, the other members representing labour, industry and university activities in different branches of science across the Dominion.

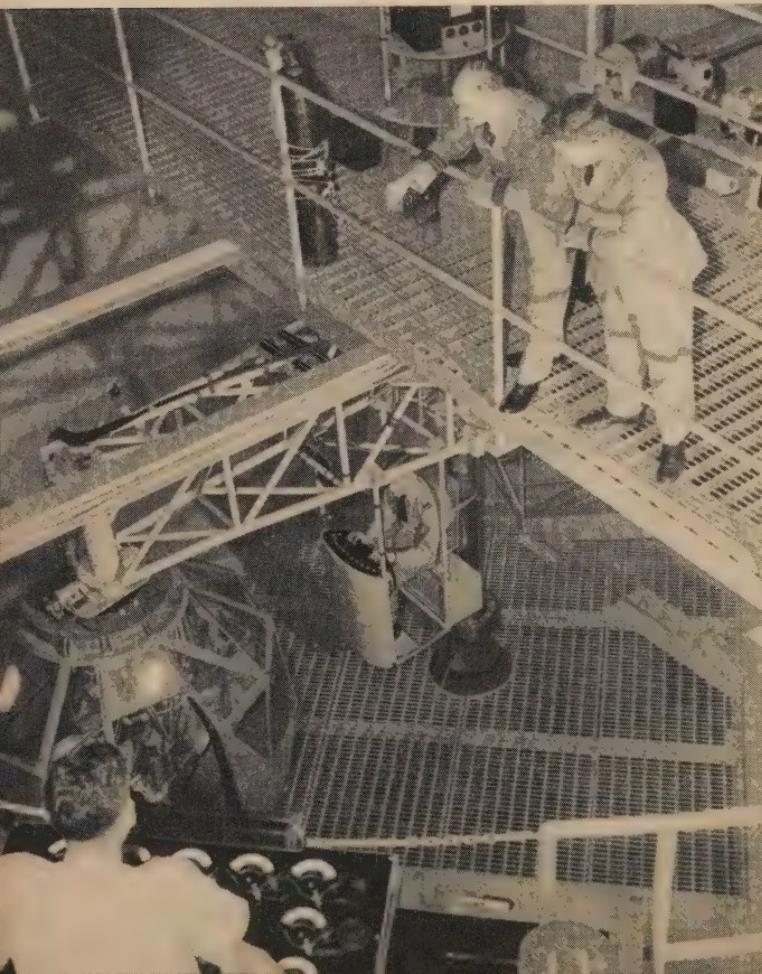
In addition to its laboratory research, the Council awards scholarships for post-graduate study and makes grants-in-aid to responsible persons in the universities to enable them to carry on research on approved projects, mostly in pure science. About \$1,000,000 of the Council's annual budget is expended on scholarships and grants-in-aid to universities. The Council's total revenue, derived largely from a Government grant but also in part from royalties and laboratory fees, amounts to about \$7,500,000 annually.

The Information Services Division provides a technical information service for the benefit of the smaller Canadian industries that do not have adequate library facilities of their own. In 1948-49 the National Research Council provided for the establishment of post-doctorate fellowships tenable in the Division of Chemistry. Heretofore scholarships have been mostly restricted to graduate students who were proceeding to the doctorate; holders of doctorate degrees who wished to pursue their research training had to go

to universities where fellowships were tenable, usually in the United States or Europe. Now, however, several research groups in the National Research Laboratories have brought their work to the point where it has attained worldwide recognition. As a consequence, post-doctorate workers from all countries have become interested in associating themselves with these projects, in order to improve their own knowledge. Subjects for investigation include photochemistry, radiation chemistry, spectroscopy, organic chemistry, radioactivity, low-temperature investigations, surface chemistry, and the properties of gases at high pressures and temperatures. By mid-year 1948, 19 fellowship awards had been made for the fiscal year 1948-49.

**The Social Sciences and Humanities.**—Membership of the Canadian Social Science Research Council, created in 1940, consists of: one member representing each of the Canadian Historical Association, the Canadian Committee of the International Geographical Union, the Canadian Political Science Association and the Canadian Psychological Association; eight members-at-large appointed by the Council; four associate members without voting powers, from the Dominion Bureau of Statistics, the Dominion Archives and similar provincial institutions; and the Chairman of the Humanities Research Council of Canada, ex officio.

In anticipation of increased demands for graduate training and facilities, a committee has surveyed the present situation. It has urged the development of graduate work in smaller institutions; the strengthening of existing



Acceleration machine constructed at the Royal Canadian Air Force Institute of Aviation Medicine, which is used for testing anti-G suits worn by pilots to prevent blackout during manœuvres. Canada has contributed extensively to the development of aviation medicine.

staffs through appointments in such neglected fields as political science, sociology and anthropology; and the regional co-operation of universities. The wider use of advanced students as tutorial assistants in the work of junior classes was strongly recommended.

The Council, with the co-operation of the Rockefeller Foundation, began in 1948 to offer pre-doctoral fellowships ranging in value from \$750 to \$1,500. The Grants-in-Aid Committee has been concerned with attempts to stimulate research in neglected fields. Among its studies are those on the Canadian north, the Canadian Indians and political movements in Canadian provinces. Grants are made in aid of publication, as well as in aid of research.

The Humanities Research Council was organized in 1942 to strengthen the position of the humanities in higher education. To promote research in this field committees were appointed to aid research, to consider publication of suitable manuscripts, to investigate problems of graduate study and to prepare a catalogue of unpublished theses in the humanities. It has brought representatives of the several disciplines together from all parts of the country to consider problems in their national setting. Attention has been focussed on major issues and proposals for dealing with them have been outlined in their report *The Humanities in Canada*.

With the assistance of the Carnegie Corporation of New York pre-doctoral fellowships are offered in 1949, and grants are available for research and publication in the humanities.

### *Public Libraries and Museums*

**Libraries.**—Public libraries in Canada are primarily urban institutions. In cities of 10,000 population or over about 95 p.c. of the people have some measure of library service. In the smaller urban centres library service is available for 42 p.c. of the population while slightly over 5 p.c. of the rural population is at present provided with library service.

In the larger centres the main libraries are conducted as free municipal institutions, usually by a board appointed by the city or town council. In the more numerous smaller centres they are conducted by the municipality or by voluntary associations. Grants are given by most of the provinces to libraries of each type. As the most effective means of promoting and assisting the library movement the Provincial Governments have established various boards or commissions. The Public Libraries Service of the Ontario Department of Education regulates grants for public, county, township and school libraries and operates travelling libraries. British Columbia has a similar service through the Public Library Commission of the Department of Education. Alberta has a Public Library Board which functions under the Minister of Economic Affairs for the Province and Saskatchewan a Library Advisory Council under the authority of the Department of Education. In 1948 the Manitoba Legislature made statutory provision for the establishment of a Public Library Board which emphasizes larger administrative areas for rural service. New Brunswick has a Public Library Commission for the establishment of library service for small centres through large centralized libraries with subsidiary agencies. This system has been in effect for many years in Prince Edward Island under direction of the Department of Education. Quebec Province is in process of establishing more adequate free public-library service for the entire Province.



*Winnipeg Auditorium, the cultural and recreational centre of the city.*

The circulation of books in Canada is confined to about 40 p.c. of the population. It is estimated that about one-quarter of the patrons of the libraries are children which is approximately the same proportion that school enrolment bears to the total population.

In 1945, the most recent year for which statistics are available, expenditures on public libraries amounted to \$2,890,476 about 49 p.c. of which was allotted to salaries. In the larger urban centres, responsible for 80 p.c. of the expenditures, the proportion for salaries ranged from 51 p.c. to 60 p.c.

**Museums.**—The post-war years have been marked by expansion in the museum field and the 76 museums in Canada represent an increasingly valuable channel for modern education. The old concept of a museum as a collection of curiosities has been abandoned and the museum has become "the ordinary man's university".

All Canadian museums, except those devoted solely to research, provide educational services to some degree but the art museums enjoy the greatest measure of public support. The problem is to extend museum facilities to a population spread thinly over a vast area. However, attendance increases with each year and especially noteworthy is the increase in visits by school classes resulting from collaboration between the museums and the schools.

The Canadian Museums Association co-ordinate activities by improving methods of training museum workers, acting as a clearing house for information, promoting exchange of exhibition material, and co-operating with other museum associations and with the International Council of Museums.

## Creative Arts

Canada is well served with institutions designed to stimulate public interest in the creative arts. Schools of fine arts, art galleries, artistic societies and festivals are well established throughout the country and play an important part in promoting the Canadian way of life.

Among the best-known teaching institutions are the Banff School of Fine Arts, situated in the Rocky Mountains, and the Fine Arts Colleges of Queen's University and Mount Allison University, situated in Central Canada and the Maritimes respectively. In the Province of Quebec the Fine Arts Divisions of Laval and Montreal Universities are noted French-language teaching institutions. The curricula of all these schools include music, drama, creative writing, painting, sculpture and handicrafts.

The Royal Conservatory of Music of Toronto enjoys the status of a national institution and its courses of study and examinations are used in all parts of Canada. Its teaching deals with every aspect of music, and in 1948 the Conservatory inaugurated a School of Opera. In Montreal a distinguished Conservatory of Music is sponsored by the Quebec Government, and most of the larger universities in Canada provide courses in advanced musical education. All the Provincial Departments of Education place great stress upon the importance of musical education in the public schools. Annual musical festivals attract widespread public attention in all the major cities, and the Winnipeg Musical Festival, sometimes involving 8,000 competitors, has achieved international fame.

The National Gallery of Canada, located at Ottawa, contains the nation's chief collection of paintings and sculpture, and performs notable extra-mural services to the entire Canadian community. Noteworthy collections are found in the civic art galleries of Toronto and Montreal, and both these institutions actively foster public participation in fine-arts activities. Numerous societies of artists thrive throughout Canada, the most distinguished being the Royal Canadian Academy of Arts, incorporated in 1882, and the recently formed Federation of Canadian Artists. Elementary art training



Sketching class,  
Artist's Colony,  
Saint John, N.B.

is provided in all the schools of Canada, and advanced courses in drawing and painting are available, usually at nominal cost, in every city.

Theatre in Canada is almost entirely the work of amateur groups and, on the whole, has gained a noteworthy degree of competence. Little Theatre organizations are well established in all the main cities (the Ottawa Drama League presented its thirty-seventh consecutive program of plays during the 1948-49 winter season). University dramatic societies are effective stimulants to Canadian public interest in the theatre, and in recent years rural communities have been encouraged by their Provincial Governments to organize dramatic activities. The Dominion Drama Festival, an annual event that brings together theatre groups from every part of Canada for a week of competitive effort, has received international recognition.

Creative writing, in both English and French, is the most deep-rooted of Canadian cultural interests, and the accumulation of Canadian books has gained impressive proportions. The Canadian Authors' Association and La Société des Ecrivains Canadiens are the two chief writers' organizations, the former having active branches in all the cities of Canada.

The Canadian Arts Council is a newly formed organization with membership including sixteen national societies which cover every aspect of creative artistic life in Canada.

## Mass Media of Communication

**Radio.**—There are in Canada about three million radio receiving sets, or about one for every four persons in the population. Private receiving licences number about 1,944,000, many of these covering more than one set,

*The Canadian Broadcasting Corporation.*—A broadcasting system may be a powerful national instrument for education in the broadest sense. In the department of public information and adult education it utilizes such forms as talks, commentaries, interviews, forum and discussion programs, either in documentary or semi-dramatized educational form. Subject matter may range from amusing yarns to discussions on world government, from modern art and Canadian literature to home economics and popular science. Broadcasts are in French or English and are intended for various groups of listeners. The CBC also carries international exchange programs and a number of commercial programs. The CBC has two national networks and provides coverage for most of Canada. Several stations have been operating with increased voltage during the past few years. The operations of the CBC are given in more detail under Transportation and Communications (see Index).

**Motion Pictures.**—There were 1,693 motion picture theatres operating in Canada in 1947 with box office receipts (including amusement taxes) amounting to \$78,684,681 or \$6.30 per capita of the population. The average admission price was 35.6 cents, allowing for 18 shows per capita.

*The National Film Board.*—The duties of the Board, which is composed of two Cabinet Ministers, three senior members of the Civil Service, and three members outside the Civil Service, are: to advise on Government film activities, to co-ordinate national and departmental film programs, to direct the distribution of government films in Canada and abroad, and to co-ordinate and develop information service to supplement this distribution. Its primary duty is to present the Canadian scene, at home and abroad, in documentary

*Movie crew shooting a scene at Mercier Dam on the Gatineau River for a National Film Board production on lumbering.*



films, still photographs and related graphic materials. Through these media, Canadians learn more of the work and ways of their fellow citizens and of Canada's relationship to other nations. In Canada the Board's films are distributed through 550 theatres, where they are seen by an estimated 3,000,000 people each month, and through 160 rural circuits, 201 film libraries and 200 community film councils to a monthly audience approaching 1,000,000. Outside Canada, films are distributed through the Board's offices and through Canadian trade and diplomatic representatives, and other agencies to 50 countries, in eight different languages.

During the year ended Mar. 31, 1948, the Film Board completed 175 film productions excluding newsreels and theatrical clips. These cover a broad range of educational and cultural subjects from agriculture, industry and labour, health and welfare, to citizenship, community life, and the creative arts.

**The Press.**—There are nearly 100 daily newspapers published in Canada, counting morning and evening editions separately. The circulation of English-language dailies is reported to be approximately 2,500,000 and French-language about 570,000. There are also 4 Chinese and 2 Yiddish dailies published in Canada.

French daily newspapers have, as would be expected, a wide circulation in the Province of Quebec and some of the larger of these papers have been established in the Province for over 60 years. Ten of the 11 French-language papers are published in that Province, the other being in the adjoining Province of Ontario. Over 93 p.c. of the total circulation of the English and French dailies is in the urban centres of 20,000 population or over.

Weekly newspapers have a somewhat wider circulation; only 61 p.c. of the stated circulation of weekly English-language newspapers is in cities of 20,000 population or over and about 80 p.c. of the French-language weeklies.

Foreign-language newspapers are more generally published as weeklies or semi-weeklies. In 1947 these newspapers had a stated circulation of about 200,000, Ukrainian papers accounting for 66,000, German 36,000, Yiddish 28,000 and Polish 16,000.



# Public Health Welfare Services Veterans Affairs

## ★ Public Health

THE responsibility for public health in Canada is divided among Federal, Provincial and local governments, with important contributions being made by private associations and organizations. Planning, supervision and financial responsibility have been largely assumed by the provinces, and to a lesser extent by the Federal Government, with actual administration being carried on for the most part by municipal and other local authorities.

The principal co-ordinating agency is the Dominion Council of Health which is composed of the Deputy Minister of National Health, as chairman, the chief health officer of each province and five other members. The Council advises the Minister of National Health and Welfare on the formulation of policy. It is largely responsible for the development of an integrated and co-operative health program and for advising on the establishment within the Federal Department of Health and Welfare of services that can be better operated on a national scale. Under the Council, federal-provincial committees deal with specific aspects of public health.

## Federal Health Services

A federal department of health was first established in 1919, to administer early health legislation such as the Quarantine, Opium and Narcotic Drugs and Proprietary or Patent Medicine Acts, to promote research and health education and to co-operate with the provinces in the co-ordination of public-health work in Canada. In 1928 these functions, together with health and other services for veterans, were taken over by the new Department of Pensions and National Health. In 1944 the Department of Veterans Affairs was established to assume responsibility for all services to veterans, and commenced its outstanding treatment and rehabilitation programs. In the same year the Department of National Health and Welfare was established. The various divisions of the Department maintain liaison with the corresponding divisions in the provinces, provide advisory and consultative services and educational material and, on request, conduct special surveys. Divisions whose functions are mainly of this nature include Child and Maternal Health, Dental Health, Epidemiology, Hospital Design, Mental Health and Nutrition.

The Department has also certain statutory responsibilities in the administration of the Food and Drugs Act, Proprietary or Patent Medicines Act,

Opium and Narcotic Drugs Act, Quarantine Act, Public Works Health Act and sections of the Immigration Act, Canada Shipping Act (Part V, Sick and Distressed Mariners), Navigable Waters Protection Act and Meat and Canned Foods Act. In 1945 administration of health services for Indians and Eskimos was assumed by the Department. The Department shares with the provinces the cost of blind pensions, passes on the eligibility of applicants for pension on the basis of examinations arranged and paid for by the Federal Government and makes grants to the provinces for the remedial treatment of the blind. A new Division of Civil Aviation Medicine was established in 1948. Promotion of the health of federal civil servants is a departmental responsibility.

**The National Health Grant Program.**—An important public-health development was the announcement in May, 1948, of a national program of health grants to the provinces, to be administered by the Department of National Health and Welfare. The program consists of three parts: the health survey grant, a flat sum to assist the provinces in assessing their needs and the priority with which they will be met; a group of annual grants designed to assist in the extension and development of provincial health programs; and an annual grant to assist in the provision of hospital accommodation. The amounts and categories of the grants are as follows:—

<i>Grant</i>	<i>Amount</i>	
	\$	
Health survey.....	625,000	Non-recurring, but amounts not expended in the fiscal year will be made available in following years.
Health Grants— Public health.....	4,395,300	Based on payment of 35 cts. per capita, and increasing 5 cts. per capita each year until a maximum of 50 cts. is reached.
Tuberculosis control.....	3,000,000	At the end of two years a supplementary grant of \$1,000,000 annually will be made available for ten years to Provincial Governments able to make use of it.
Mental health.....	4,000,000	To be increased to \$5,000,000 at the end of two years, to \$6,000,000 at the end of four years and to \$7,000,000 at the end of six years.
Venereal disease control....	500,000	An annual grant of \$225,000 was in existence prior to commencement of the program so that this figure represents an additional grant of \$275,000.
Crippled children.....	500,000	—
Cancer control.....	3,500,000	—
Professional training.....	500,000	—
Public health research.....	100,000	To be increased by \$100,000 annually, until the grant reaches \$500,000 per annum.
Hospital construction.....	13,000,000	To be reviewed at the end of five years with possible reduction by half at that time.
<b>TOTAL.....</b>	<b>30,120,300</b>	

**Medical Research.**—The Medical Research Division of the National Research Council acts as a co-ordinating body in the conduct of medical research and makes grants for the assistance of such research in universities and other institutions. The Division expended \$271,000 on fellowships, scholarships and grants during the year ended Mar. 31, 1948.



Canada's beautiful Rocky Mountain playgrounds provide facilities for happy healthful recreation.

### *Provincial and Municipal Services*

Although basic local health services such as sanitation, communicable disease control and registration of births, deaths and marriages are generally in the hands of cities, municipalities, counties or other local units, Provincial Governments have gradually assumed increased financial responsibility, with correspondingly increased supervision and control. The Provincial Departments of Health generally plan and direct such health services as vital statistics, infant, child and maternal hygiene, public-health laboratories, health education and public-health nursing, as well as communicable disease control and public-health engineering.

Diagnostic and treatment clinics are provided in various provinces for one or more of such diseases as tuberculosis, venereal diseases, cancer and

poliomyelitis. In some cases vaccines, sera and other special drugs are supplied by provincial laboratories to practising physicians. Other activities of the local and Provincial Health Departments include dental services, school medical services, epidemiology and industrial hygiene.

**Institutions.**—The provinces generally operate tuberculosis sanatoria or contribute to their maintenance. Mental hospitals also are usually provincial institutions. The provinces provide grants to assist in the maintenance of public general hospitals, which are largely supported by municipal and provincial funds.

**Health Units.**—In most provinces there are health districts or units; in many cases these correspond to cities or counties. They are mainly concerned with the usual public-health functions. In some provinces the municipal doctor plan has been developed, where a health unit employs a full-time doctor to serve the residents of the unit.

**Medical and Hospital Care.**—Free treatment is given to indigents, and in some cases, with respect to certain diseases such as tuberculosis, to all residents. In Alberta a maternity hospitalization service is provided by the Province. In Saskatchewan there is a Provincial Government prepaid hospitalization program, supported by an annual tax on each resident with a maximum payment for a family, which provides for hospital care, including operating room, X-ray and other examinations. A similar program commences in British Columbia on Jan. 1, 1949. Private prepaid medical care and hospital insurance plans have been extensively developed throughout the country.

### *Non-Governmental Health Agencies*

In addition to many local and provincial health organizations, major national agencies are: the Canadian Red Cross, which has converted its wartime blood-donor system into a civilian blood bank and transfusion service; the Victorian Order of Nurses, with well-established home-nursing and maternity services; the Order of St. John, with its training and service in first aid, home nursing, and blood grouping; and the Canadian Tuberculosis Association, whose provincial branches conduct mass X-ray surveys and educational programs. The Health League of Canada sponsors educational and publicity work in health generally and the National Committee for Mental Hygiene operates similarly in its field. Recently the Department of National Health and Welfare co-operated with interested individuals and organizations in the establishment of two national health bodies, the National Cancer Institute and the Canadian Rheumatism and Arthritis Society, for the purposes of education, publicity and research.

### *Statistics of Health Institutions*

The Dominion Bureau of Statistics collects, through its Division of Health and Welfare, statistics concerning public and private hospitals, institutions for incurables, federal hospitals, tuberculosis sanatoria and mental institutions. The institutions reporting in 1946, by provinces, were as follows:—

## Hospitals and Sanatoria, by Provinces, 1946

Type of Institution	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	N.W.T.	Canada
Public.....	3	32	19	84	154	39	89	92	74	9	595
Incurable.....	Nil	Nil	Nil	5	10	1	2	2	3 <sup>1</sup>	Nil	23
Private.....	"	12	4	50	48	5	63	22	30	1	235
Federal.....	"	8	6	8	18	12	4	10	13	1	80
Mental Institutions....	1	17	1	8	17	4	3	5	4	Nil	60
Tuberculosis Sanatoria <sup>2</sup> ....	1	12	5	33	17	9	4	6	7	"	94
<b>Totals.....</b>	<b>5</b>	<b>81</b>	<b>35</b>	<b>188</b>	<b>264</b>	<b>70</b>	<b>165</b>	<b>137</b>	<b>131</b>	<b>11</b>	<b>1,087</b>

<sup>1</sup> Includes two branches of the Provincial Infirmary.

<sup>2</sup> Includes 49 units in other hospitals.

In 1946 returns were received from 595 of the 618 public hospitals for acute diseases known to be in operation during the year. Of the reporting hospitals, which contained 98.9 p.c. of the total bed capacity, 507 had X-ray facilities, 329 had clinical laboratories and 262 had physio-therapy facilities. During the year 1,504,893 patients received treatment and the average cost per patient day was \$4.76. While the number of salaried doctors in these hospitals increased by 17 p.c. over the previous year, interns by 24 p.c. and graduate nurses by 13 p.c., the number of student nurses enrolled decreased by 3.9 p.c.

Of the 60 mental institutions in Canada in 1946, 41 were operated by the provinces, 15 were county or municipal hospitals, 2 were federal and 2

Canada's stimulating winter climate is ideal for outdoor play and the development of healthy bodies.



were private hospitals. At the end of the year they reported 53,423 patients under care, 49,163 of whom were in residence. Of the total under care, 75.5 p.c. were psychotic, 22.0 p.c. were mental defectives without psychosis, 1.5 p.c. were epileptics without psychosis and 1.0 p.c. had other types of mental disorder. Total revenues of these institutions amounted to \$26,978,416, 63.3 p.c. of which came from Provincial Governments, 15.4 p.c. from the Federal Government, 3.6 p.c. from municipal governments and 12.1 p.c. from paying patients.

The 94 tuberculosis institutions reporting in 1946 had 12,006 patients in residence at the end of the year, compared with 10,721 in 84 institutions at the end of 1945. Of the total revenue of \$11,301,611 received by these institutions in 1946, 59 p.c. came from Provincial Governments, 13 p.c. from federal grants, 10 p.c. from municipalities, 4 p.c. from patients and 14 p.c. from other sources. Much work has been done in recent years by the Provincial Boards of Health in the fight against tuberculosis through the operation of tuberculosis clinics and the taking of mass surveys. In 1947, 2,003,802 examinations were made and 13,773 active cases of tuberculosis were reported. This was a slight drop in number of active cases to total examinations as compared with 1944.

The numbers of beds in the different types of institution, by provinces, and per 10,000 population are given in the following table.

#### *Hospital Beds in Reporting Hospitals and Sanatoria and Hospital Beds per 10,000 Population, by Provinces, 1946*

NOTE.—Rates are based on population figures shown on p. 46

Province or Territory	Acute Diseases Hospitals	Tuber-culosis Sanatoria	Mental Institutions	Incurables	Private Hospitals	Total Hospitals <sup>1</sup>
TOTAL BEDS <sup>2</sup>						
P.E.I.....	256	140	290	—	19	705
N.S.....	2,610	1,131	2,537	—	70	6,348
N.B.....	1,951	758	1,000	—	96	3,805
Que.....	14,440	4,055	13,725	976	951	34,147
Ont.....	15,374	3,999	16,630	1,643	730	38,376
Man.....	3,366	938	2,578	425	88	7,395
Sask.....	4,201	851	3,520	216	460	9,248
Alta.....	5,141	797	2,623	178	135	8,874
B.C.....	5,391	925	2,540	364	814	10,034
Yukon and N.W.T.....	338	—	—	—	17	355
<b>Canada.....</b>	<b>53,068</b>	<b>13,594</b>	<b>45,443</b>	<b>3,802</b>	<b>3,380</b>	<b>119,287</b>
BEDS PER 10,000 POPULATION						
P.E.I.....	27	15	31	—	2	75
N.S.....	43	18	41	—	1	103
N.B.....	40	16	21	—	2	79
Que.....	40	11	38	2	3	94
Ont.....	38	10	40	4	2	94
Man.....	46	13	35	6	1	101
Sask.....	50	10	42	3	5	110
Alta.....	64	10	32	2	2	110
B.C.....	54	9	25	4	8	100
Yukon and N.W.T.....	140	—	—	—	7	147
<b>Canada.....</b>	<b>43</b>	<b>11</b>	<b>36</b>	<b>3</b>	<b>3</b>	<b>96</b>

<sup>1</sup> Federal hospitals not included.

<sup>2</sup> Bassinets for newborn not included.

## ★Welfare Services

In recent years there has been considerable growth in the extension and co-ordination of municipal, provincial and voluntary welfare services in Canada, as well as notable progress in the development of a nation-wide social security program.

Traditionally and historically, social welfare in Canada developed as a local responsibility, with the municipalities deriving their powers from the provincial authority. Over the past two or three decades, however, economic and social developments, together with rising standards of public welfare, have thrust into provincial and federal areas of jurisdiction an increasing measure of responsibility. Although the municipalities continue to carry substantial welfare burdens, Provincial Governments have undertaken to provide services for special groups, financial assistance to municipal welfare programs, aid in co-ordinating local services and encouragement of improved standards of service.

With the exception of old age pensions, which were introduced in 1927, the trend towards greater federal responsibility began during the pre-war depression decade in the fields of unemployment relief, agricultural relief and other financial aid to the provinces. A national system of contributory unemployment insurance was introduced in 1940, the National Physical Fitness Grant Program in 1943 and family allowances in 1944.

On the administrative side, each province has a permanent public welfare service, either as a separate department or jointly with the Department of Health, to operate provincial services and exercise supervisory authority over welfare programs, both public and private.

### Federal Welfare Services

The creation of the Department of National Health and Welfare (8 Geo. VI, c. 22, 1944) brought into being for the first time a Federal Government service in which matters of welfare are a prime responsibility. The main functions of that Department, in the field of welfare, are: the promotion of social security and social welfare of the people of Canada; investigation and research; the preparation and distribution of information on social and industrial conditions affecting the lives and health of the people; co-operation with provincial authorities with a view to co-ordination of efforts in the welfare field. The Welfare Branch administers family allowances, old age pensions and pensions for the blind, and the National Physical Fitness Program. Other welfare services are administered by the Department of Labour, the Unemployment Insurance Commission, the Department of Mines and Resources and the Department of Veterans Affairs.

**Family Allowances.**—The Family Allowances Act, 1944, was introduced to provide more equal opportunity for the children of Canada. The allowances are paid monthly to parents (to mothers, except in unusual circumstances) and must be spent exclusively for the maintenance, care, training, education and advancement of the child.

In general, all children under sixteen years of age, including Indians and Eskimos, are eligible for an allowance. Such a child must be registered for the allowance and be maintained by a parent, as defined in

the Act. For registration purposes the child under the age of sixteen years must reside in Canada and, in addition, must have been born and resident since birth in Canada or have lived in Canada for the three years preceding registration. Residence provisions do not apply to children born to parents domiciled in Canada but temporarily out of the country. The allowance is not payable to a child who, being of an age when he is required to attend school by the laws of the province where he resides and physically fit to attend school, fails either to do so or to receive equivalent training.

The allowances, which are tax free, are paid by cheque monthly at the following rates:—

Children under 6 years of age.....	\$5
Children from 6-9 years of age.....	\$6
Children from 10-12 years of age.....	\$7
Children from 13-15 years of age.....	\$8

The allowances are reduced after the fourth child as follows: one dollar reduction for the fifth child, two dollars each for the sixth and seventh child, and three dollars for each additional child.

Current disbursements under the Family Allowances Act are running at the rate of \$270,780,000 per annum.

#### *Family Allowances Statistics, August, 1948*

Province or Territory	Families to Whom Allowances Were Paid	Total Children	Average Allowance per Family	Average Allowance per Child	Total Allowances Paid August, 1948
	No.	No.	\$	\$	\$
Prince Edward Island.....	12,868	32,184	14.87	5.94	191,357
Nova Scotia.....	87,910	204,284	13.75	5.92	1,208,875
New Brunswick.....	69,455	178,046	14.92	5.82	1,036,257
Quebec.....	477,543	1,276,423	15.55	5.82	7,424,594
Ontario.....	563,661	1,113,782	11.83	5.98	6,666,043
Manitoba.....	101,164	210,306	12.41	5.97	1,256,032
Saskatchewan.....	115,681	260,421	13.50	6.00	1,562,265
Alberta.....	121,634	259,831	12.87	6.02	1,565,643
British Columbia.....	143,006	268,347	11.26	6.00	1,610,243
Yukon and Northwest Territories.....	3,400	7,537	13.00	5.86	44,188
<b>Canada.....</b>	<b>1,696,322</b>	<b>3,811,161</b>	<b>13.30</b>	<b>5.92</b>	<b>22,565,497</b>

**Old Age Pensions and Pensions for Blind Persons.**—The Old Age Pensions Act, passed by Parliament in 1927, provided for the payment of non-contributory pensions to persons 70 years of age or over who fulfilled certain requirements as to income, residence and nationality. An amendment to the Act, passed in 1937, provided for pensions for blind persons 40 years of age or over who fulfilled similar requirements.

Several amendments have since been made to the Act, the most important of these being made in 1947. As the Act stands at present, the maximum income allowed to old age pensioners, including pension, is \$600 a year in the case of an unmarried pensioner and \$1,080 a year in the case of a married pensioner, with higher amounts for blind pensioners. Each province is free to fix the maximum pension payable and the maximum income allowed, within the limits of the Act and the Federal Government's contribution to

any pensioner shall not exceed 75 p.c. of \$30 a month. In certain provinces old age and blind pensions are augmented by a supplement paid for entirely by the province. The qualifying age for old age pensioners remains at 70 years, while that for blind pensioners has been lowered to 21 years. Residence requirements have been relaxed by the latest amendments and the requirement regarding nationality has been eliminated. The Department of National Health and Welfare is responsible for the federal administration of pensions paid under the Old Age Pensions Act.

### *Summary of Old Age Pensions, by Provinces, as at June 30, 1948*

Province or Territory	Total Pensioners	Average Monthly Pension <sup>1</sup>	Pensioners to Population 70 Years of Age or Over	Persons 70 Years of Age or Over to Total Population	Federal Government's Contribution since 1927
	No.	\$	p.c.	p.c.	\$
Prince Edward Island.....	2,474	25.44	39.90	6.50	3,535,253
Nova Scotia.....	17,426	29.02	51.86	5.41	32,446,657
New Brunswick.....	14,839	29.33	67.14	4.50	23,767,302
Quebec.....	60,496	29.04	48.91	3.33	107,025,631
Ontario.....	73,458	29.63	33.50	5.24	180,063,364
Manitoba.....	15,347	29.67	47.08	4.39	38,176,668
Saskatchewan.....	15,136	29.51	46.86	3.84	37,173,270
Alberta.....	14,116	29.65	47.37	3.63	30,950,595
British Columbia.....	22,634	29.46	40.86	5.31	43,336,883
Northwest Territories.....	21	29.29	11.48	1.52	43,294
<b>Canada<sup>2</sup>.....</b>	<b>235,947</b>	<b>29.35</b>	<b>42.50</b>	<b>4.42</b>	<b>496,521,917</b>

<sup>1</sup> Excluding provincial supplements which are paid for entirely by the provinces.

<sup>2</sup> Excluding Yukon.

### *Summary of Pensions for Blind Persons, by Provinces, as at June 30, 1948*

Province or Territory	Total Pensioners	Average Monthly Pension <sup>1</sup>	Pensioners to Total Population	Federal Government's Contribution since 1937
	No.	\$	p.c.	\$
Prince Edward Island.....	124	28.24	0.132	193,700
Nova Scotia.....	818	29.57	0.132	1,273,970
New Brunswick.....	934	29.82	0.190	1,490,258
Quebec.....	3,276	29.66	0.088	4,881,083
Ontario.....	1,927	29.70	0.046	3,163,103
Manitoba.....	468	29.92	0.063	708,549
Saskatchewan.....	433	29.82	0.051	681,572
Alberta.....	363	29.98	0.044	488,690
British Columbia.....	498	29.40	0.048	689,063
Northwest Territories.....	1	30.00	0.008	695
<b>Canada<sup>2</sup>.....</b>	<b>8,842</b>	<b>29.68</b>	<b>0.070</b>	<b>13,570,683</b>

<sup>1</sup> Excluding provincial supplements which are paid for entirely by the provinces.

<sup>2</sup> Excluding Yukon.

**Unemployment Insurance.**—In 1940, by an amendment to the British North America Act, the Federal Government was given complete jurisdiction in the field of unemployment insurance and since that time a national system of unemployment insurance administered by the Unemployment Insurance Commission has been in operation. (*See Labour Chapter.*)



*Shooting a scene for the immunization film "Invisible Armour", produced by the National Film Board. This is one of the methods used by the Department of National Health and Welfare in bringing before the public the fact that immunization is the most effective means of protection against communicable disease.*

**Physical Fitness.**—A program of fitness and recreation for Canada was introduced with the proclamation on Oct. 1, 1943, of the National Physical Fitness Act. Under that Act a National Council was established to promote the well-being of the people of Canada through physical fitness and recreational activities. The Council, set up on Feb. 15, 1944, is an advisory body appointed by the Governor General in Council, which meets twice each year to discuss the over-all program, and to advise the Minister of National Health and Welfare on various aspects of it. In some provinces, provincial fitness councils function on lines comparable to the National Council.

The Act is administered by the Department of National Health and Welfare whose Physical Fitness Division acts as a clearing house among the provinces for the latest information on fitness, recreation, community centres, physical education, sports and kindred activities.

The Federal Government makes available to the provinces on a per capita basis an amount not exceeding \$225,000 annually for the promotion of physical fitness and recreational projects. Financial assistance is given only to those provinces that have signed specific agreements with the Federal Government, such provinces receiving their share to the extent to which they match it dollar for dollar.

<i>Province</i>	<i>Maximum Financial Grant Available Annually</i>	<i>Expiry Date of Agreement</i>	<i>Province</i>	<i>Maximum Financial Grant Available Annually</i>	<i>Expiry Date of Agreement</i>
	\$			\$	
P.E.I. ....	1,858	Mar. 31, 1949	Man. ....	14,269	Mar. 31, 1949
N.S. ....	11,302	Dec. 31, 1948	Sask. ....	17,521	Dec. 31, 1953
N.B. ....	8,944	Mar. 31, 1952	Alta. ....	15,568	Mar. 31, 1951
Que. ....	65,151	No agreement	B.C. ....	15,993	Mar. 31, 1949
Ont. ....	74,063	No agreement	N.W.T. ....	234	Mar. 31, 1952
			Yukon. ....	97	No agreement

**Welfare of Indians and Eskimos.**—The Indian Affairs Branch of the Department of Mines and Resources is responsible for the welfare of the Indians of Canada. The Branch, in co-operation with the Family Allowances Division of the Department of National Health and Welfare, administers the payment of family allowances to those Indians who are paid in kind.

The Commissioner in Council of the Northwest Territories and the Elective Legislative Council of the Yukon Territory, are responsible for the health and welfare of indigent white and half-breed persons in their respective areas. These authorities act through the Northwest Territories and Yukon Services of the Department of Mines and Resources which, in co-operation with the Family Allowances Division of the Department of National Health and Welfare, supervise the payment of family allowances to the Eskimos of Canada.

**Federal Government Annuities.**—The Canadian Government Annuities Act was passed in 1908 to authorize the issue of Government annuities, the purpose being to encourage and aid Canadians to make provision for old age. Any resident of Canada may purchase a Federal Government annuity up to \$1,200, payable for life only, or for life with a guarantee period of 5, 10, 15 or 20 years, or for the lives of joint annuitants with continuation to the survivor. Immediate annuities may be purchased in a lump sum and are payable immediately. Deferred annuities are usually bought by employed persons and are purchased by payment of periodic premiums or a single premium, and are payable on retirement.

Annuities may be purchased under individual contracts or by members of groups under group contracts. A group contract is generally an agreement with an employer to implement a retirement plan approved by the Minister of Labour, the purchase money being, as a rule, derived jointly from employers' contributions and deduction from wages.

On Mar. 31, 1948, annuity income of \$18,919,715 was payable under 44,099 contracts. The number of deferred annuities being purchased by individuals privately was 74,773. The number of group contracts was 708, covering 92,063 registered employees. The balance at credit of the Annuities Fund was \$429,518,235.

Local offices are maintained in 44 centres throughout Canada to advise the public regarding the purchase of Federal Government annuities.

**Dependents' and Veterans' Allowances.**—Allowances paid to veterans' dependents and to certain non-pensionable veterans are dealt with under "Veterans Affairs", p. 90.

### *Provincial Welfare Services*

The field of provincial welfare work is a very wide one. It includes homes for the aged and infirm, children's aid societies, reformatories, day

nurseries, homes for child delinquents, training schools for mentally defective children, psychiatric services and industrial schools. These are, in some provinces, maintained solely by provincial funds, in others by municipal, public or joint municipal and provincial funds. The Provincial Governments also supervise the institutions operated by cities, counties, districts and religious and benevolent societies, provide mothers' allowances and other social services and, in co-operation with the Federal Government, provide old age pensions and pensions for the blind (*see pp. 82-83*).

**Mothers' Allowances.**—All the provinces except Prince Edward Island provide allowances to mothers who are widowed or who, under certain circumstances, are without means of support. Except in Alberta, where 25 p.c. of the allowance is borne by the municipality, and in Manitoba, where part of the cost is charged back to the municipalities through an equalized assessment, the whole cost is provided from provincial funds. The Acts of the respective provinces stipulate that the applicant must comply with certain conditions at the time of application.

In Nova Scotia the exact amount paid is determined by the special circumstances of each case, with a monthly maximum of \$80 per family. In New Brunswick the maximum allowance is \$27·50 per month for a mother and one child, and \$7·50 per month for each additional child. Under certain circumstances an additional \$7·50 per month may be paid, provided the total amount payable per month does not exceed \$60. In Quebec a mother with one child receives \$35 per month if living in a city or town of 5,000 or more, \$30 per month if living elsewhere with an extra \$5 a month for a mother physically unable to work and for a disabled husband living at home. An additional \$1 per month for each is paid for the second, third, fourth and fifth child, \$2 each for the sixth and seventh and \$3 each for the eighth and subsequent children. In Ontario the maximum rate for mother and child is \$50 per month, with \$10 for each additional child and for a disabled husband in the home. An additional \$10 per month per beneficiary may also be paid where need is evidenced. Manitoba pays a maximum monthly allowance of \$40 for a mother and one child, excluding winter fuel, with additional allowances for subsequent children and a disabled father in the home. The maximum monthly allowance, excluding winter fuel, granted to any size of family, with or without the father in the home, is \$121. In Saskatchewan the maximum yearly allowance payable for a mother and one child is \$300, mother and two children \$420, mother and three children \$480, increasing to \$900 for a mother and ten children. Alberta pays a maximum of \$35 per month for a mother and child, with the amount rising to \$100 for a mother with nine children. The exact amount of allowance is set by the Provincial Government after consideration of circumstances in each case. Under the British Columbia regulations the amount that may be paid is \$50 per month for mother and one child and \$8·50 for each additional child and for an incapacitated husband in the home.

**Workmen's Compensation.**—For accidents occurring in the course of employment, compensation is payable in accordance with the law of each province, except Prince Edward Island, to workers or, in fatal cases, to their dependents. The entire cost of compensation and medical aid is borne by employers through a collective liability scheme administered by the province.

Monthly pensions at a fixed rate are paid to widows and children; injured workmen receive two-thirds of their earnings (three-quarters in Saskatchewan) during total disablement, but the maximum amount of earnings taken into account is \$2,000 in Nova Scotia, \$2,500 in New Brunswick, Quebec, Ontario, Manitoba, Alberta and British Columbia and \$3,000 in Saskatchewan.

**Dependent and Handicapped Groups.**—The work of the various institutions and agencies for the care of dependent and handicapped groups may be classified under two main headings: the care of adults and the care of children.

Latest data show that at June 1, 1946, there were 16,302 adults under care. Of these, 1,043 were between the ages of 21 and 30 years; 1,617 between 30 and 50; 1,369 between 50 and 60 years; and 12,273 were 60 years of age or over. Forty per cent were supported from charitable and private funds. In regard to mental and physical condition, 1,794 were either blind, deaf and dumb, or crippled, while 1,826 were feeble-minded or sub-normal, and 1,183 were epileptic, incurable or insane.

At the same date, there were under care 30,317 children under 20 years of age, of which number 5,926 were in homes for adults and children, 11,754 in orphanages, 583 in day nurseries, and 12,054 in children's aid societies.

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*Extending a helping hand at a boys' club.*





A Red Cross volunteer worker, travelling with a mobile dental coach, makes note of a child's weight and condition of health. Such coaches, operated by the Red Cross, provide dental services to the outlying districts of Ontario and Quebec.

### Other Welfare Services

There are in existence many voluntary organizations whose efforts are directed to social welfare. The Canadian Welfare Council, a national association of public and private agencies, provides a means of co-operative planning and action by serving as a link between voluntary agencies and between public and voluntary agencies. Specialized organizations, such as the Canadian National Institute for the Blind, which functions in every field of blind welfare, and the Canadian Council of the Blind, occupy a somewhat similar role in their particular fields. The various Community Chest organizations and service clubs assist welfare work by helping to finance local organizations, and the work of the Young Men's Christian Association, the Young Women's Christian Association, the Catholic Youth Organization and the Young Men's Hebrew Association, the Boy Scouts, Girl Guides and similar youth organizations in what may be described as preventive rather than curative work cannot be overlooked. Day nurseries prove invaluable to many mothers who are obliged to work. Most of the activities of these organizations are not susceptible to statistical measurement. The Canadian Red Cross, the Victorian Order of Nurses, and the Order of St. John perform many welfare services, though they are more properly designated as public health organizations.

## ★ Veterans Affairs

The Department of Veterans Affairs was established in October, 1944, to administer the legislation concerning the re-establishment of ex-service men and women in civilian life. The peak of the Department's work was reached in 1946, since demobilization of approximately one million men and women who served in the Armed Forces of Canada was almost entirely completed during that year. The Department has an organization extending from Charlottetown to Victoria, including hospitals in all the large centres. Close liaison is maintained between the Department of Veterans Affairs and other federal and provincial departments and community organizations. Approximately one-half of the staff has been engaged in providing adequate medical treatment and care for the thousands of eligible veterans requiring it. The remainder of the staff has dealt with the various other branches: the Veterans' Land Act Administration; the Rehabilitation Branch; the Canadian Pension Commission; the War Veterans' Allowance Board; General Administration; etc.

Certain of the legislation passed for the assistance of veterans has served its purpose and has been dropped. Continuing legislation is outlined below.

**Treatment Regulations.**—The majority of veterans receive treatment under five of the twelve classifications contained in these regulations.

Class I provides treatment for pensioners for their pensionable disability. If hospitalized, the veteran receives the equivalent of 100 p.c. pension rate less \$15 per month, and if an out-patient, the equivalent of 100 p.c. pension rate.

Class II\* provides treatment shown to be required at the time of discharge. Such treatment must be commenced generally within thirty days following discharge and may be continued for the period of a year, or the period of service if less than a year, with allowances equal to the pay and allowances of rank in effect at the time of discharge. If pension entitlement has been granted, treatment may be continued to finality.

Class III\* provides treatment for veterans for any disability not a result of misconduct arising during the year following their discharge. While receiving such treatment, monthly allowances of: single \$50, married \$70, plus allowances for dependents, may be paid.

Class V provides treatment for the remainder of their lives for veterans with meritorious service and pensioners, where it is shown that the veteran is unable to afford the treatment required. No allowances are paid except, where necessary, a "comforts and clothing" allowance.

Class VI provides domiciliary care for totally disabled aged veterans who require some one to look after them, but who do not require active treatment.

Veterans are also entitled to any dental treatment required during the year following discharge. They are provided, free of charge, with prosthetic appliances which they require and these appliances are serviced and renewed for life.

The general policy with regard to post-discharge treatment is designed to provide the best possible professional medical and surgical care for veteran patients. The peak of the load was reached in the spring of 1946 and since

\* Treatment in this class is ended in practically all cases, due to the time elapsed since the War.

then a large proportion of the Armed Service's hospitals taken over to meet the peak have been closed and a permanent building program undertaken, much of which will not concern beds but rather ancillary services essential for adequate investigation, diagnosis and treatment.

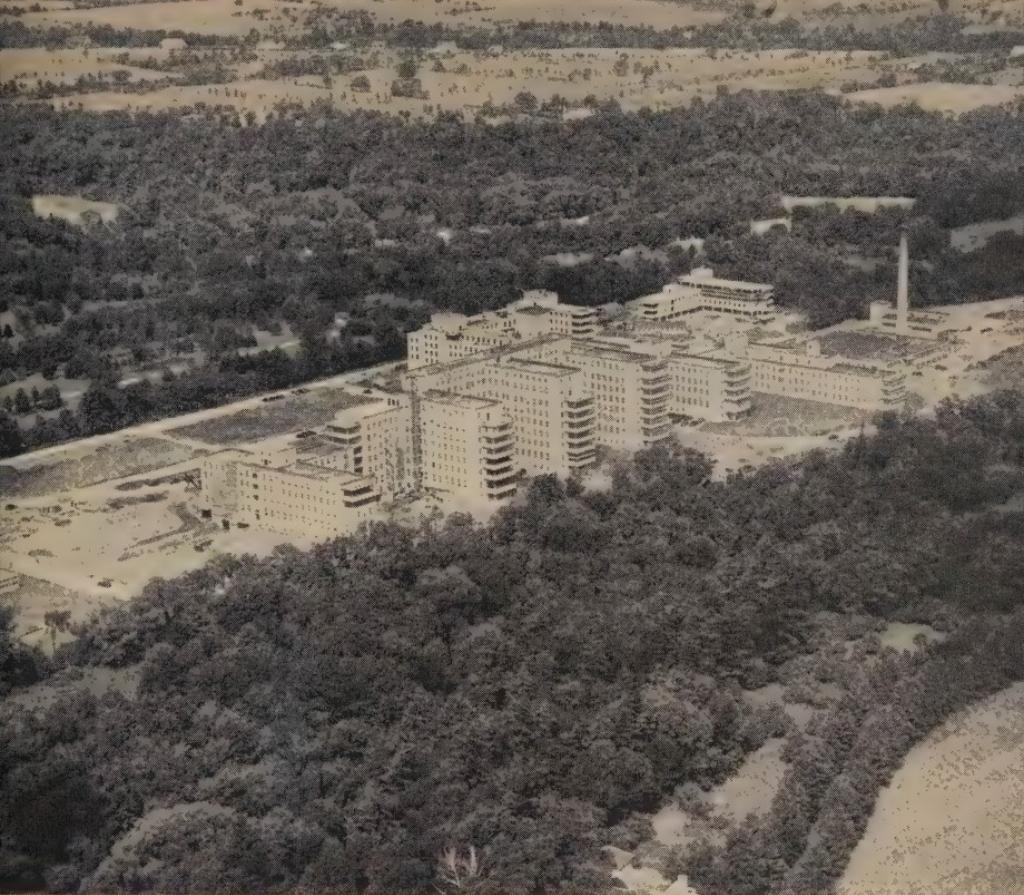
**Veterans Rehabilitation Act.**—Under this legislation considerable numbers of veterans have been given the opportunity to resume schooling interrupted by war service and to upgrade their abilities in almost every field of business and professional endeavour. Training allowances as well as academic fees were paid under the Act, which also provided for allowances to veterans temporarily incapacitated, those awaiting returns from new farms and businesses, and veterans lacking employment in the first eighteen months after discharge. The majority of these allowances have now ceased, except for those to veterans still studying at Canada's universities under the rehabilitation plan, and those whose applications for vocational training came late in 1948. Awaiting returns allowances may be made available to veterans settled on farms under the Veterans' Land Act at any time within one year after their establishment. Provision is also made for certain disabled pensioners and veterans in hospital whose training has been necessarily postponed.

**War Service Grants Act.**—This Act provides for gratuities and re-establishment credits for veterans, and these are calculated on length, type and category of service. Payment of war service gratuities has been made to more than 950,000 ex-service men and women, virtually completing this portion of the program. However, re-establishment credits, which are in effect additional gratuities expended on the veterans' behalf only for certain approved purposes, may be used at any time within ten years after the date of discharge or cessation of hostilities (Dec. 31, 1946, under this Act), whichever is the later, provided alternative rehabilitation benefits have not been obtained. The average re-establishment credit is approximately \$400.

**The Pension Act.**—Under this Act pensions are paid to veterans as a compensation for loss or lessening of normal abilities incurred during service. The 100 p.c. pension rates per annum for ranks equivalent to captain (military) or lower are: man, \$1,128; wife, \$372; first child, \$228; second child, \$180; each subsequent child, \$144; widows, \$900. Higher rates are in effect for higher ranks. Pensions vary from 5 p.c. to 100 p.c. based on assessed percentage of disability. The insurance principle applies for service in Canada and overseas. Under this principle the disability need not be directly a result of service duties.

The Canadian Pension Commission examines the final medical report of each discharged member of the Forces. If a disability is found on discharge a decision on pension entitlement is rendered. Adequate provision exists for the review of unfavourable decisions, and veterans may have the assistance of the Veterans' Bureau in preparing and presenting such claims for review at no cost to the veteran.

**War Veterans' Allowance Act.**—Veterans become eligible for an allowance under this Act when they reach the age of 60 or, due to physical or economic reasons, or a combination of both, become incapable of supporting themselves before reaching that age. The age limit for widows of veterans



*Sunnybrook Hospital, Toronto, the largest veterans hospital in the Commonwealth and one of the most modern in the world, was officially opened on June 12, 1948. Situated on a beautiful 500-acre estate, it has accommodation for 1,450 patients.*

who might have qualified is 55. To qualify, veterans must have served with the Canadian Forces in a theatre of war, or on active service with the Canadian Forces in two wars. The maximum annual allowances are: single \$480, married \$840. Reductions in these allowances are made for other income, although the exemptions to this rule were recently increased to enable the recipient to have certain other regular income along with casual earnings and an equity in a home.

**Veterans' Land Act.**—This Act offers three main types of assistance to qualified veterans for settling on the land: full-time farming; small holdings in connection with industrial or other employment; or small holdings in connection with commercial fishing. Maximum assistance allowed is \$6,000, of which up to \$1,200 may be spent for stock and equipment. The veteran pays down 10 p.c. of the cost of land, buildings and permanent improvements, and contracts to repay two-thirds of that cost over a period of not more than twenty-five years at  $3\frac{1}{2}$  p.c. interest. The remainder of the cost becomes a grant from the Federal Government but may not be realized until the veteran has satisfactorily fulfilled the terms of his contract for at least ten years.

The Act also contains provision for assistance to veterans settling on provincial Crown lands and Indian Reserves, and to veterans holding farms under lease or by agreement of sale. There is also provision for fully repayable loans at  $3\frac{1}{2}$  p.c. interest to veterans who own their own farms.

**The Veterans' Business and Professional Loans Act.**—This Act enables veterans to obtain loans through the chartered banks up to a maximum of \$3,000 at not more than 5 p.c. interest for business or professional purposes. The amount of the loan may not exceed two-thirds of the total amount to be invested in the business. The banks follow normal lending practices, but the Government guarantees each individual bank at the rate of 25 p.c. on any loss incurred on the first million dollars lent by each bank, and 15 p.c. on loans in excess of the first million dollars. The total amount of loans by all banks to which such guarantee extends is \$25,000,000.

In addition to the above legislation there are a number of Acts entitling, to a greater or less degree, former members of Auxiliary Services, Merchant Navy, South African Nurses, Special Operators, etc., to benefits under all or part of this program.

**The Veterans Insurance Act.**—This Act makes Government life insurance available to veterans at cost as low as that of most standard companies and in most cases without medical examination. It is available in multiples of \$500 up to a maximum of \$10,000. It may be applied for within six years of discharge or Feb. 20, 1945, whichever date is later.



A physio-therapist at a veterans hospital conducting a class in foot and leg exercises to repair injuries received on active service.

# National Income Survey of Production

**T**HIS chapter summarizes the annual value of goods and services produced by Canadians and the way in which this total product of our economic activity is utilized to satisfy consumer wants, to provide government services or to increase the nation's capital at home or abroad. Thus the first section, "National Income", deals with such aggregates as net national income at factor cost, gross national product and expenditure, and personal income. The second section, "Survey of Production", gives gross and net values of production for primary and secondary industries.

## ★ National Income

**Net National Income at Factor Cost and Gross National Product at Market Prices.**—Gross national product is defined as the market value of all goods and services produced by the labour, capital and enterprise of Canadian residents in a specified period—in this case a year—measured through a consolidated national accounting of all costs involved in their production. These costs include salaries, wages, interest, net rents and profits and, in addition, indirect taxes less subsidies, and depreciation and similar business charges. The aggregate of salaries, wages, interest, net rents and profits is known as net national income at factor cost or, more briefly, national income. Thus, national income measures the aggregate earnings of residents of Canada from current production of goods and services.

Estimates of gross national product and expenditure and national income indicate the wide fluctuations that have taken place in the Canadian economy since 1929 and the tremendous expansion during the war years. The gross national product which was \$5,956,000,000 in 1929 had fallen by 41·8 p.c. to \$3,468,000,000 in 1933. By the year 1939 it had recovered to \$5,598,000,000, a figure approaching the 1929 level. The increased activity of the war period caused very large and rapid increases in the gross national product which reached \$11,297,000,000 in 1943, an increase of 101·8 p.c. over 1939. Gross national product was relatively stable for the years 1944, 1945 and 1946, but increased substantially to \$13,375,000,000 in 1947. It must be noted that the figures for gross national product and its related aggregates and components reflect price changes as well as changes in the volume of production of goods and services. Thus, while the value of gross national product fell by 41·8 p.c. between 1929 and 1933, the fall in real terms would be much less than this because of the decline in price level; similarly the increase of 12·7 p.c. between 1946 and 1947 was largely an increase in prices rather than an increase in real production.

Salaries and wages combined with military pay and allowances accounted for 60·7 p.c. of national income in 1929, 75·4 p.c. in 1933, 61·0 p.c. in 1939, and 57·5 p.c. in 1947. Investment income, that is, corporate profits before



*Threshing operations in Eastern Canada are often on as large a scale as in the west. This huge stack of straw on a farm near Picton, Ontario, was afterwards baled and shipped for paper manufacture.*

tax, government trading profits, interest and net rents, declined from 17·4 p.c. of the national income in 1929 to 9·8 p.c. in 1933 and rose from this latter figure to 18·3 p.c. in 1939 and 21·0 p.c. in 1947. Net income of agriculture and other unincorporated business, a mixture of labour income and investment income, was 21·9 p.c. of the total in 1929, 14·9 p.c. in 1933, 20·8 p.c. in 1939 and 21·4 p.c. in 1947.

#### **Net National Income at Factor Cost and Gross National Product at Market Prices, 1929, 1933, 1939 and 1942-47**

(Millions of Dollars)

Item	1929	1933	1939	1942	1943	1944	1945	1946	1947 <sup>1</sup>
Salaries, wages and supplementary labour income.	2,839	1,791	2,583	4,251	4,746	4,908	4,915	5,322	6,235
Military pay and allowances.....	8	8	32	641	910	1,068	1,117	340	83
Investment income.....	814	233	783	1,737	1,778	1,774	1,918	1,949	2,309
Net income of agriculture and other unincorporated business.....	1,028	355	891	1,753	1,659	1,962	1,822	2,154	2,354
<b>Net National Income at Factor Cost.....</b>	<b>4,689</b>	<b>2,387</b>	<b>4,289</b>	<b>8,382</b>	<b>9,093</b>	<b>9,712</b>	<b>9,772</b>	<b>9,765</b>	<b>10,981</b>
Indirect taxes less subsidies.....	674	566	737	1,073	1,126	1,123	1,005	1,261	1,572
Depreciation allowances and similar business costs <sup>2</sup> .....	677	500	582	883	912	863	785	846	928
Residual error of estimate	-84	+15	-10	+169	+166	+189	+170	-9	-106
<b>Gross National Product at Market Prices.....</b>	<b>5,956</b>	<b>3,468</b>	<b>5,598</b>	<b>10,507</b>	<b>11,297</b>	<b>11,887</b>	<b>11,732</b>	<b>11,863</b>	<b>13,375</b>

<sup>1</sup> Preliminary.      <sup>2</sup> Includes an estimate of capital outlay charged to current account which has also been included under "Gross home investment—plant, equipment and housing" in the table on p. 95.

**Gross National Expenditure at Market Prices.**—Gross national expenditure is defined as the market value of all goods and services produced by the labour, capital and enterprise of Canadian residents in a year, measured through a consolidated national accounting of the sales of these goods and services, including changes in inventories. Thus, it measures the same total as gross national product but in a different way. Incompleteness or inconsistency of available statistical sources, however, is necessarily reflected in a difference between these aggregates when they are measured independently. The difference between the totals obtained by measurement of gross national product and gross national expenditure is divided equally, under the heading of "Residual error of estimate", in the two tables.

**Gross National Expenditure at Market Prices, 1929, 1933, 1939  
and 1942-47**

(Millions of Dollars)

Item	1929	1933	1939	1942	1943	1944	1945	1946	1947 <sup>1</sup>
Personal expenditure on consumer goods and services.....	4,383	2,848	3,861	5,547	5,860	6,300	6,945	7,913	8,888
Government Expenditures									
Mutual Aid, UNRRA, and military relief.....	—	—	—	1,002	518	960	858	97	38
Other.....	686	521	724	2,815	3,753	4,115	2,852	1,731	1,443
Gross Home Investment—									
Plant, equipment and housing <sup>2</sup> .....	1,107	221	554	931	828	756	865	1,321	2,042
Inventories <sup>3</sup> .....	10	-105	327	335	-40	-82	-300	467	842
Exports of goods and services <sup>4</sup> .....	1,632	826	1,451	2,322	3,403	3,566	3,576	3,197	3,616
Imports of goods and services.....	-1,945	-828	-1,328	-2,275	-2,858	-3,539	-2,893	-2,871	-3,599
Residual error of estimate.....	+83	-15	+9	-170	-167	-189	-171	+8	+105
<b>Gross National Expenditure at Market Prices..</b>	<b>5,956</b>	<b>3,468</b>	<b>5,598</b>	<b>10,507</b>	<b>11,297</b>	<b>11,887</b>	<b>11,732</b>	<b>11,863</b>	<b>13,375</b>

<sup>1</sup> Preliminary.      <sup>2</sup> See footnote 2 of preceding table.      <sup>3</sup> Includes grain held by the Canadian Wheat Board.      <sup>4</sup> Excludes Mutual Aid, UNRRA, and military relief.

Gross national expenditure can be divided into four main components: (1) Consumer expenditure; (2) Government expenditure; (3) Gross home investment; and (4) Net foreign expenditure, i.e., exports less imports.

Consumer expenditure comprises personal expenditure of Canadian residents on consumer goods and services, as ordinarily understood, except that expenditure on housing is excluded and added to gross home investment. Other consumer durables, such as automobiles and refrigerators, are included in consumer expenditure. In 1929, consumer expenditure thus defined was \$4,383,000,000 or 73·6 p.c. of gross national expenditure; in 1947, the figure was \$8,888,000,000 or 66·5 p.c. of gross national expenditure.

Government expenditures on goods and services which was \$686,000,000 in 1929, and \$724,000,000 in 1939, rose markedly during the war years to a high of \$5,075,000,000 or 42·7 p.c. of gross national expenditure in 1944. In 1947, government expenditure was \$1,481,000,000 or 11·1 p.c. of gross national expenditure compared with 11·5 p.c. in 1929 and 15·0 p.c. in 1933. It should be noted that these figures include only government expenditures on goods and services; government outlays for transfer payments such as family allowances, war service gratuities, etc., are excluded by definition.

Gross home investment includes expenditure on new machinery, residential and commercial construction, as well as net changes in inventories. The great variability in investment spending can be seen from the preceding table. Gross home investment was \$1,117,000,000 or 18·8 p.c. of gross national expenditure in 1929; \$116,000,000 or 3·3 p.c. in 1933; \$881,000,000 or 15·7 p.c. in 1939; and \$2,884,000,000 or 21·6 p.c. in 1947. The large increase in investment spending in the post-war period coupled with increased consumer expenditure, has more than offset the effect of the decline in government expenditure.

In 1947, exports of goods and services exceeded the highest level of the war years and reached the figure of \$3,616,000,000 compared with \$1,632,000,000 in 1929; \$826,000,000 in 1933; \$1,451,000,000 in 1939. Sales to consumers, to business, to government and to foreigners include the value of goods and services imported from abroad. Since imports are the product of the labour, capital, and enterprise of foreigners and not of Canadian residents, they must be excluded from gross national expenditure. This is accomplished by subtracting the value of current imports of goods and services from the preceding items. Thus, only the net foreign balance on current account is included in gross national expenditure. In 1947 imports like exports were at an all-time high of \$3,599,000,000.

**Personal Income and Disposition.**—Personal income measures all income received by individuals irrespective of whether or not it is earned. Personal income differs from national income in that it excludes all current earnings not paid out to persons such as undistributed profits and government trading profits, and includes receipts that have not been earned in the course of production, that is—transfer payments. Personal income declined from \$4,532,000,000 in 1929 to \$2,758,000,000 in 1933, a decrease of 39·1 p.c. By 1947, personal income had reached \$10,279,000,000.

The disposition of personal income falls logically into three main groups. A portion is taken in direct taxes by governments. Direct taxes on personal income, succession duties, and the personal share of motor-vehicle and other licences, permits, and fees are included in this category. A portion is also spent on consumer goods and services. Expenditure on consumer durables, such as refrigerators and automobiles, are included here but, as noted above, expenditure on housing is excluded. The third portion is saved. Personal saving shown in the table below is a residual estimate obtained by subtracting direct taxes and consumer expenditure from the total of personal income. In 1929, 1·5 p.c. of personal income was paid in direct taxes, 96·7 p.c. was spent on consumer goods and services, and 1·8 p.c. was saved; while in 1933, 2·4 p.c. was paid in direct taxes, 103·3 p.c. was spent on consumer goods and services, and saving was negative at 5·7 p.c. The fact that saving was negative in 1933, in the depth of the depression, indicates that people were forced to supplement their current incomes by liquidation of assets or by incurring liabilities. During the war years, under conditions of consumer shortages, high incomes, and intensive government campaigns for saving, personal saving rose to a high of 19·7 p.c. of total personal income in 1943 and 1944. By 1947, this percentage had fallen to 5·9 p.c. compared with the pre-war level of 7·5 p.c. in 1939.

**Personal Income, by Sources, 1929, 1933, 1939 and 1942-47**

(Millions of Dollars)

Source	1929	1933	1939	1942	1943	1944	1945	1946	1947 <sup>1</sup>
Salaries, wages and supplementary labour income.	2,839	1,791	2,583	4,251	4,746	4,908	4,915	5,322	6,235
Deduct: Employer and employee contributions to social insurance and government pension funds.....	-25	-20	-34	-110	-124	-132	-135	-147	-166
Military pay and allowances.....	8	8	32	641	910	1,068	1,117	340	83
Net income of agriculture and other unincorporated business.....	1,028	355	891	1,753	1,659	1,962	1,822	2,154	2,354
Interest, dividends, and net rental income of persons.....	584	428	570	715	757	806	847	888	949
Transfer payments from governments to persons.	98	196	249	226	216	263	552	1,113	824
<b>Personal Income.....</b>	<b>4,532</b>	<b>2,758</b>	<b>4,291</b>	<b>7,476</b>	<b>8,164</b>	<b>8,875</b>	<b>9,118</b>	<b>9,670</b>	<b>10,279</b>

<sup>1</sup> Preliminary.

*Bleached sulphate pulp mill at Marathon, Ontario. Large pulp and paper mills established along the north shore of Lake Superior utilize the rich timber resources of that area.*



## Disposition of Personal Income, 1929, 1933, 1939 and 1942-47

(Millions of Dollars)

Item	1929	1933	1939	1942	1943	1944	1945	1946	1947 <sup>1</sup>
Personal Direct Taxes— <sup>2</sup>									
Income taxes.....	33	38	61	433	631	772	733	711	694
Succession duties.....	16	13	28	37	38	40	47	54	61
Miscellaneous.....	19	16	21	24	28	25	25	31	31
Totals, Direct Taxes...	68	67	110	494	697	837	805	796	786
Personal expenditure on consumer goods and services.....	4,383	2,848	3,861	5,547	5,860	6,300	6,945	7,913	8,888
Personal Saving— <sup>3</sup>									
Net change in farm inventories.....	-144	-29	60	368	-62	-124	-238	-41	-100
Other.....	225	-128	260	1,067	1,669	1,862	1,606	1,002	705
Totals, Personal Saving.	81	-157	320	1,435	1,607	1,738	1,368	961	605
Personal Income.....	4,532	2,758	4,291	7,476	8,164	8,875	9,118	9,670	10,279

<sup>1</sup> Preliminary.      <sup>2</sup> Actual collections in the current year reduced in the case of income taxes by the estimated refundable portion which has been treated as saving. Miscellaneous direct taxes include the personal share of motor-vehicle and other licences, permits and fees.  
<sup>3</sup> Estimated residually by deducting personal direct taxes, and personal expenditure on goods and services from total personal income.

## ★ Survey of Production

The value of industrial output in Canada established new records in 1948. Employment rose to a maximum, the value of goods distributed by retail trade was much greater than in any other year and exports of merchandise continued to be heavy. A large outlay on various types of construction and productive equipment, which usually accompanies high levels of employment and income, was very much in evidence, steel production and new business placed with the construction industry being beyond precedent.

Both gross and net values of production were greater during 1946 than in any previous year except 1944. Net value is the more significant figure in view of the large amount of duplication included in the gross total. Net production represents an estimate of the amount contributed to the national economy by the leading industrial groups engaged in commodity production. It is made up of the gross value less the cost of materials, fuel, purchased electricity and supplies consumed in the production process. The operations of the nine branches of industry considered here are directed either through primary or secondary phases toward the production of commodities rather than services, the activities of transport, trade, finance, government and service groups being entirely excluded.

**Trends in Value and Volume.—Value.**—A new high point was reached during 1946 in the aggregate for the six industrial groups dependent directly upon natural resources. Variation in the output of farm products was the dominant factor in the fluctuation of total primary production during the five-year period ended that year, setbacks in the upward trend being recorded



*Ships in for repairs at an eastern dockyard.*

only in 1943 and 1945. Forestry showed an unbroken advance over the period with a marked gain of 29 p.c. in 1946 due to unprecedented building activity and high prices obtained for wood products. The income produced by the mining industry, after rising sharply from 1938 to 1942, showed a recession for the following four years. The demand for base metals slackened upon the relaxation in war demand and gold mining was adversely affected by inflationary developments. The expansion of the power industry, retarded somewhat during the War, continued in the post-war years.

The fisheries industry was characterized by an upward trend, the net value of the output being more than three times as great in 1946 as in 1938. After having remained relatively stable during the four years ended 1945, the output of the trapping industry rose 44.5 p.c. in 1946 over the preceding year. The increase of 373 p.c. in 1946 over 1938 was relatively greater than in any other of the nine main industrial groups.

An upward trend was also shown in the value of production of the secondary industries during the period 1938-46. The advance in construction and custom and repair activities, which was quite marked in 1946 as compared with 1945, counterbalanced the recession in manufactures of 2.7 p.c.

*Volume.*—A rough impression of the expansion in the volume of production may be obtained by dividing the net value by the most appropriate price indexes or by the use of industrial production indexes. The outstanding feature in the 1938-46 period was the marked expansion in the volume of

manufacturing production which was more than twice as great in 1944 as in 1938. While construction and custom and repair activities continued to advance in 1945 and 1946, the trend for secondary industries as a whole conformed rather closely to that of manufactures. The primary industries also expanded during the 1938-46 period but the growth was more moderate than in the field of manufactures. The bountiful harvest of 1942 was an important feature in determining the maximum of the period and the fluctuation in the volume of farm production was a predominant influence for the primary section as a whole. The output of power rose considerably between 1938 and 1943, but the change in later years was relatively unimportant.

**Long-Term Trend.**—A study of the production of eight of the nine industrial groups from 1919, the value of farm production being not yet available, showed that the long-term growth of manufactures was greater than that for any other group. Expressed in terms of an index based on 1935-39 = 100, the average annual increase for total production was 4·6 points and that for manufactures 5·6.

**Relative Position of Industrial Groups.**—The changes in the relative position of the different industrial groups in 1946 as compared with 1938 showed betterment in all but mining, power and custom and repair. Agricultural production advanced from 21·5 p.c. of the total in 1938 to 22·9 p.c. in 1946, and the rating of manufactures, including duplication with three primary groups, improved from 50 p.c. to 53·5 p.c. Because of the decrease in the rating of mining and power, the primary industries as a whole produced a smaller share of the total production in 1946 than in 1938 and the secondary group, inclusive of duplication, advanced from 60 p.c. to 63·1 p.c.

**Provincial Movements.**—A review of provincial trends in the period 1938-46 shows the course of expansion in Prince Edward Island to be somewhat similar to that of Nova Scotia. The sharpest advance in each of these two provinces was from 1941 to 1943. A new maximum was reached in 1946, the relative advance being greater in Prince Edward Island. A smooth upward trend was shown in New Brunswick, the increases having been continuous for eight years. Productive activity advanced in Ontario and Quebec to 1944 with a recession in 1945. The minor recovery in 1946 failed to offset the drop of the preceding year. The curve of production in Manitoba recorded a relatively steady increase except in 1945, when the crop was much below the average of other recent years. The bountiful harvest in Saskatchewan and Alberta in 1942 and 1944 established the pattern for agriculture for Canada as a whole. Net production rose during 1946 to a new high point in Alberta but the level for Saskatchewan was below that of 1942 and 1944. After a marked advance in British Columbia from 1938 to 1943, the position was not greatly altered in subsequent years, though a maximum was reached in 1946.

Production in the Western Provinces gained in relative importance during 1946 over 1945. The increase in the net value of output in each of the four provinces west of the Great Lakes was greater than the 6·4 p.c. gain in the total for Canada. The advances of 4 p.c. and 2 p.c., respectively, in net production in Quebec and Ontario resulted in a lowering of the relative importance of the two central provinces compared with 1945. Prince Edward

Island remained the same and New Brunswick bettered its relative position but Nova Scotia produced a smaller share of the Canadian production than in 1945.

The net production per person at \$624 was larger in Ontario during 1946 than in any other province, and British Columbia was second with \$590. Per capita production in the other provinces was: Alberta, \$534; Quebec, \$492; Saskatchewan, \$473; Manitoba, \$452; New Brunswick, \$337; Nova Scotia, \$323; and Prince Edward Island, \$237. The provincial data compare with a country-wide per capita net production of \$526.

### *Gross and Net Values of Production, by Industries, 1945 and 1946*

Industry	1945		1946	
	Gross	Net	Gross	Net
	\$	\$	\$	\$
Agriculture.....	1,679,321,000	1,269,362,000	1,949,833,000	1,483,263,000
Forestry.....	964,237,446	550,970,574	1,228,994,287	711,026,833
Fisheries.....	166,144,381	103,106,209	177,024,678	107,908,162
Trapping.....	21,505,447	21,505,447	31,077,867	31,077,867
Mining.....	766,721,126	413,576,800	754,386,422	422,074,303
Electric power.....	215,105,473	210,006,712	226,096,273	220,511,067
<i>Less duplication in forest production<sup>1</sup>....</i>	<i>80,641,000</i>	<i>64,501,946</i>	<i>88,427,000</i>	<i>69,209,239</i>
Totals, Primary Production.....	3,732,393,873	2,504,025,796	4,278,985,527	2,906,651,993
Construction.....	543,579,833	267,957,837	868,661,403	408,695,662
Custom and repair.....	262,621,000	178,200,000	314,310,000	213,273,000
Manufactures.....	8,250,368,866	3,564,315,899	8,035,692,471	3,467,004,980
Totals, Secondary Production.....	9,056,569,699	4,010,473,736	9,218,663,874	4,088,973,642
<i>Less duplication in manufactures<sup>2</sup>....</i>	<i>1,115,088,513</i>	<i>428,243,781</i>	<i>1,266,379,183</i>	<i>518,517,965</i>
<b>Grand Totals...</b>	<b>11,673,875,059</b>	<b>6,086,255,751</b>	<b>12,231,270,218</b>	<b>6,477,107,670</b>

<sup>1</sup> Duplication eliminated between the agriculture and forestry totals; both items include the value of forest products obtained from farm lots. <sup>2</sup> This is the duplication eliminated under "Manufactures" which item includes sawmills, pulp and paper mills, etc., also included under other headings above.

### *Gross and Net Values of Production, by Provinces, 1945 and 1946*

Province or Territory	1945		1946	
	Gross	Net	Gross	Net
	\$	\$	\$	\$
Prince Edward Island.	36,292,631	20,658,906	38,485,051	22,244,191
Nova Scotia.....	339,955,413	186,931,838	351,820,499	197,767,578
New Brunswick.....	258,227,358	139,435,407	301,398,163	161,947,268
Quebec.....	3,314,173,776	1,716,038,573	3,442,459,182	1,785,407,464
Ontario.....	5,054,495,222	2,510,200,208	5,060,202,869	2,560,422,986
Manitoba.....	559,892,930	280,458,384	628,034,340	328,453,444
Saskatchewan.....	568,566,436	339,755,726	636,880,150	393,878,839
Alberta.....	596,276,054	340,703,182	710,419,493	428,908,507
British Columbia.....	940,842,242	547,416,908	1,054,195,480	591,478,855
Yukon and Northwest Territories.....	5,152,997	4,656,619	7,374,991	6,598,538
<b>Canada...</b>	<b>11,673,875,059</b>	<b>6,086,255,751</b>	<b>12,231,270,218</b>	<b>6,477,107,670</b>



PLOUGHING

# Agriculture

**A**GRICULTURE is the most important single industry in Canada—about one-quarter of the population is engaged in farming. At the time of the 1941 Census, 3,200,000 people were living on 733,000 farms, the total extent of which, including 92,000,000 acres of improved land, was 175,000,000 acres. Most of the readily available agricultural land is now occupied and any further increase in cultivated acreage must be developed on, or beyond, the fringe of settlement or by improvement of occupied land through clearing, draining, irrigation and control of weeds.

As pointed out in previous editions of the Handbook, agriculture, like many other industries, underwent marked changes in the war years. The Canadian agricultural problem was not one of ploughing up pastures, of bringing new areas into production in order to expand food supplies at all costs; rather it was the diversion of farm acreages to new commodities, or to new proportions of previously cultivated crops. Encouragement, rather than direct regulation, was relied upon. Production in Eastern Canada was intensified. In Western Canada major shifts occurred in the production program and diversification, which had been making slow progress, was hastened. This trend slowed down considerably after 1944. Production in Canada as a whole was influenced by the requirements of the British Ministry of Food and by domestic needs. Specifically, this resulted in expansion of the live-stock and live-stock products enterprises, in coarse grain acreage, and in the acreage of such crops as flaxseed, soybeans, rapeseed, fibre flax, sugar beets and peas. These changes in volume and type of product reflect a major adjustment which, considered as a whole, brought a better balance to agriculture. Though the adjustment was Canada-wide, it was reflected most in the Prairie Provinces.

Immediate post-war agriculture followed closely the pattern that arose from wartime requirements, with special emphasis on the production of live-stock, dairy and poultry products—particularly eggs. Despite the world shortage of wheat, increased production of this grain in Canada beyond a somewhat definite acreage presents difficulties. Broadly speaking, unless summerfallow, essential to water conservation, is sacrificed, every increase in wheat acreage tends to reduce the production of oats and barley required to feed live stock and poultry. The problem is to keep the acreage in wheat, feed grains and summerfallow in suitable balance.

By 1947; however, marketing problems had arisen, which may change the pattern of Canadian agriculture once again. On the financial side Great Britain with a shortage of dollar currency was of necessity forced to buy more foodstuffs within the Sterling Area. In addition, and as a permanent program, her agriculture was being developed in a manner to make her less dependent upon imported foods. Canada, suffering from a drain of United States dollars, was faced with the necessity of supplying the United States with more Canadian commodities, including agricultural products, to offset Canadian purchases in the United States. The currencies of some

European countries were so unstable that overseas purchases in almost any country, and particularly those in the Dollar Area, were next to impossible.

The European Recovery Plan, instituted by the United States and under which that country finances (in United States dollars) authorized purchases by European countries in the United States and in other countries, has undoubtedly eased the situation, and has made United States currency available for further purchases and for adjusting international trade balances. Generous as this arrangement is, it is obviously a temporary expedient, and its final success depends upon general European recovery, and particularly on the ability of some European countries to build up a worthwhile export trade.

There are two other major factors which may change the pattern of Canadian agriculture. Agricultural production in war-torn Europe is improving, and although it may be well into 1951 before pre-war levels of all agricultural production are reached, wheat and grain crops are likely to be first to reach a more satisfactory position. There is, therefore, the possibility of reduced demand for Canadian wheat and feed grains as production improves in many European importing countries.

The third factor is linked to the high level of industrial activity in Canada itself and the greater purchasing power in the hands of the public. Greater quantities of food are being consumed domestically. During the War Canada became highly industrialized, and there seems no reason to conclude that the ability to produce the tools of war will not be transformed into an ability to produce equipment for peace.

That greater quantities of food are being used domestically is readily seen from the increased consumption of fluid milk, butter and cheese. No important quantities of fluid milk are exported. Canadians consumed 351,000,000 lb. of butter in 1947, a straight 100,000,000 lb. increase over 1937. In 1937, they used 4,284,000,000 lb. of milk and cream; by 1947, the total was up to 5,760,000,000 lb. Canadians in 1937 used 40,000,000 lb. of cheese; in 1947 they used 64,000,000 lb.

The daily per capita consumption of milk (including cream expressed as milk) advanced between 1942 and 1946 from 0.92 pint to 1.02 pints. The figure for 1947 was 0.97 pint. The domestic disappearance of butter, estimated at 33.69 lb. per capita in 1942, declined by 4.5 lb. the following year as a result of butter rationing. In 1947 the per capita disappearance had moved up to 27.93 lb., the figure for 1946 being 25.75 lb. Cheese has been consumed in greater quantities in recent years, moving from 4 lb. per capita in 1942 to 5.08 lb. in 1947. During the seven years 1941-47, the disappearance of concentrated whole-milk products advanced from less than 11 lb. per capita to 16 lb. in 1947; and concentrated milk by-products from 3.48 lb. to 4.56 lb. The domestic disappearance of all dairy products expressed in terms of milk, showed a per capita increase in 1947 over 1946 of 54 lb.

The same trend is also reflected in the per capita consumption of meats, which for all meats has risen from 118.4 lb. during the four years prior to 1940, to 146.0 lb. in 1947. Beef consumption has risen from 54.7 lb. during 1935-39 to 67.7 lb. in 1947; pork, including bacon and ham, from 39.9 lb. to 52.7 lb. Veal, mutton and lamb consumption has declined slightly, probably the result of consumer preference for beef and pork. Domestic consumption of eggs and poultry has also increased.

During the War, the greater potential domestic consumption of food was deliberately offset by rationing and other control measures. This was done to provide greater quantities of food and agricultural supplies for the Armed Forces and for Great Britain, where such commodities were as important as the more tangible weapons of war. With most of these controls discontinued, and greater domestic purchasing power in Canada, the tendency will be for the quantity of some agricultural products available for export to lessen, unless production of commodities required for domestic use can be increased. This is not an easy task with all commodities as, for example, with dairy products which all originate from the available total supply of fluid milk, and are most sensitive as processed products—butter, cheese, evaporated milk—to supply and demand. Increase in population, both natural or through immigration, is still another factor, but its effect upon greater domestic consumption would be gradual.

In general it may be said that the future pattern of Canadian agriculture will depend largely upon the direction in which the exportable surplus of products will eventually flow in response to the outcome of international financial difficulties. The amount of the surplus and particularly the kind of agricultural products that make up the surplus will, in turn, depend upon the level of consumption in Canada.

For the immediate present, however, Canada is still the principal supplier of foodstuffs to the United Kingdom. Imports of foodstuffs from Canada totalling 43,600 cwt. in the first six months of 1948 represent 57·9 p.c. of all provisions purchased from abroad by the United Kingdom. This quantity compares with 62·6 p.c. in the same period of 1947 and 25·4 p.c. in 1938. In these six months of 1948, Canada supplied 82 p.c. of the wheat and flour imported, 75 p.c. of the bacon, 40 p.c. of the eggs and 69 p.c. of the canned salmon.

The food contracts with the British Government which originated during the War have been continued annually since. The more important of these in effect through 1948 cover wheat, bacon, cheese and eggs. Wheat comes under a four-year agreement (1946-50) and Canada has supplied the full quantity of 160,000,000 bu. for the year ended Aug. 31, 1948, and has undertaken to ship 140,000,000 bu. for the year ending Aug. 31, 1949. Some of this may be supplied as flour. The contract for about 195,000,000 lb. of bacon and pork products during the year is likely to be met in full, as is the undertaking to provide the equivalent of 74,000,000 doz. eggs, either fresh, storage, powdered, or as frozen melange. It is probable that the full quantity of 50,000,000 lb. of cheese may not be available, as a result of greater domestic use of butter and the greatly increased demand, both in Canada and for export, for condensed and evaporated milk. This illustrates the difficulty, previously referred to, of marketing a number of products all of which compete with each other, and all of which originate from the same raw product.

Shortage of farm help, particularly for haying and at harvest time, and for specialized crops, continues to be something of a problem, but it is being offset to some extent by the greater mechanization of farm operations. The Dominion-Provincial Farm Labour Program, providing joint action between the Federal and Provincial Governments in the cost of recruiting and transporting farm labour, has proved valuable in augmenting farm help required for seasonal farm operations. In addition, year-round workers from European



A tractor at work on a potato farm in New Brunswick.

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countries, particularly Holland, and Polish war veterans who have come to Canada since the War, have helped greatly in swelling the number of farm workers. During 1948 farm labour immigration from displaced persons camps in Germany had progressed to the point where a Canadian farmer could obtain a year-round helper from overseas within a very short time of his application being filed with the National Employment Service.

A number of Acts passed by the Federal Parliament also directly assist the farmer to meet some of his problems. Among those at present in effect are the Agricultural Prices Support Act, 1944; the Prairie Farm Rehabilitation Act, 1935, as amended in 1937 and 1939; the Maritime Marshland Rehabilitation Act, 1948; the Prairie Farm Assistance Act, 1939; the Cheese and Cheese Factory Improvement Act, 1939; the Farm Improvement Loans Act, 1944; and the Veterans' Land Act, 1942. Agencies such as the Federal Department of Agriculture, the Provincial Departments of Agriculture and the Canadian Farm Loan Board help the farmer financially and in other ways. The following paragraphs summarize Federal Government agricultural policy and legislation.

**Price Support.**—Possibly one of the most important pieces of farm legislation enacted within recent years is the Agricultural Prices Support Act, 1944, which enables the Federal Government, acting through a Board, to

establish support prices for an agricultural product (except wheat, which is handled separately) that is in over-supply. The operating section of this Act, which is effective only by Order in Council, has recently been extended to Mar. 31, 1950. Support prices were extended under this Act to Maritime potatoes in 1946 and to Nova Scotia apples in 1947 and 1948.

**Prairie Farm Rehabilitation Act.**—Land conservation activities are being continued under the Prairie Farm Rehabilitation Act. The Act was passed in April, 1935, "to provide for the rehabilitation of drought and soil-drifting areas in the Provinces of Manitoba, Saskatchewan and Alberta". Emphasis is placed upon assistance to farmers in the development of water supply and improved farm practices. Under the terms of this Act the Minister of Agriculture is authorized to introduce throughout the affected area those "systems of farm practice, tree culture, and water supply that will afford greater economic security" to the agricultural population. By an amendment to the Act in March, 1937 (1 Geo. VI, c. 14), "land utilization and land settlement" were included as additional objectives, while a later amendment in March, 1939 (3 Geo. VI, c. 7), removed the original five-year limit to the life of the Act.

In accordance with the terms and intentions of this Act, there has been organized throughout the drier regions of the Prairie Provinces (comprising over 400,000 sq. miles located in southwestern Manitoba, southern Saskatchewan and southeastern Alberta) a rehabilitation program which has as its main objective the adjustment of prairie agriculture to the conditions

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*Eight thousand covered cucumber plants in a garden overlooking the North Thompson River near Kamloops, B.C.*



imposed by severe droughts such as those of the 1930-37 period. This rehabilitation program covers three main phases of work: water development, land utilization and promotion of better farming practices. Approximately \$29,000,000 have been spent on this program since its inception in 1935. The bulk of this expenditure has gone into the construction of water development projects—ranging in size from small reservoirs on individual farms to irrigation projects involving thousands of acres—while the construction of community pastures on sub-marginal lands has also been important.

**Land Reclamation.**—While operations under the Prairie Farm Rehabilitation Act are confined to the Prairie Provinces, land reclamation and development work is being carried out elsewhere by the Department of Agriculture to meet special situations. Several projects relating to the settlement of veterans have been undertaken in British Columbia and assistance has been granted to the Maritime Provinces for emergency repairs of the protective dykes in the coastal marshland areas. The Maritime Marshland Rehabilitation Act, passed in 1948, provides for a thoroughgoing program of dykeland reconstruction, with provincial co-operation.

**Prairie Farm Assistance Act, 1939.**—Under the Prairie Farm Assistance Act, 1939, the Federal Government makes cash payments each year to farmers in areas within the Prairie Provinces which have had low crop yields because of drought or other causes. The award to a farmer is based upon the acreage of the farm and the average yield of wheat in the township in which the farm is located, and the maximum amount payable on any one farm is \$500. Contributory payments are made by the farmers in the form of a levy of 1 p.c. on the value of all grains marketed. As at Mar. 31, 1948, \$89,502,733 had been paid out in benefits and \$32,326,849 had been collected from the levy; the difference was provided from the Consolidated Revenue Fund.

**Potato Warehouses.**—A policy was inaugurated in 1947 whereby the Federal Department of Agriculture provides cash assistance in respect to potato warehouses constructed by Co-operative Associations. The assistance amounts to  $37\frac{1}{2}$  p.c. of the cost of the warehouse and is conditional upon the co-operative paying 25 p.c. and the Provincial Government where the warehouse is located paying the remaining  $37\frac{1}{2}$  p.c. All warehouses must have the approval of a Dominion-Provincial Committee set up for the purpose in each province in which warehouses are to be built under this policy.

**Cheese and Cheese Factories.**—The Cheese and Cheese Factory Improvement Act was passed in 1939 to encourage the improvement of cheese and cheese factories. Under the provisions of this Act, a quality premium of one cent per pound is paid on cheddar cheese scoring 93 points and two cents per pound on cheese scoring 94 points or over.

The Governor General in Council may grant, out of money appropriated by Parliament for the purpose, a sum not exceeding 50 p.c. of the amount actually expended for new material, new equipment and labour utilized in constructing, reconstructing and equipping cheese factories that are eligible for a subsidy under the Act and regulations. This subsidy applies for the amalgamation of two or more existing cheese factories provided that the replaced cheese factories cease to operate as such prior to the payment of the grant. The Act also provides for paying 50 p.c. of the cost actually expended



*Sheep on the range in Alberta.*

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in efficiently insulating and enlarging cheese-curing rooms, either with or without mechanical refrigeration. In order to standardize the size of cheese manufactured in the various factories, the Act provides for paying 50 p.c. of the cost of replacing cheese hoops where factories are using hoops of a diameter other than 15 inches. Frequently when the factory adopts the 15-inch hoop, the presses, followers and bandagers have to be adjusted or replaced, and such costs are also included in the subsidy.

**Farm Credit.**—To provide adequate farm credit, the Canadian Farm Loan Board at present carries on lending operations throughout Canada. The purposes for which loans may be granted are for farm improvements, including the erection of buildings, the purchase of live stock and equipment, farm operating expenses, purchase of farm lands and the refinancing of existing farm indebtedness. Second-mortgage loans cannot be made for the purpose of purchasing farm lands. For intermediate term credit, the Federal Parliament amended the Bank Act (Aug. 9, 1944) and passed a "companion" Act, the Farm Improvement Loans Act, 1944.

The main forms of financial assistance provided at the present time by the Federal Government to farmers for housing purposes include: the Canadian Farm Loan Board outlined above, the National Housing Act and the Farm Improvement Loans Act dealt with under Construction, and the Veterans' Land Act, under Veterans' Affairs (*see Index*).

## ★ Statistics of Agriculture

### Income of Farm Operators from Farming Operations

Net income of farm operators from farming operations (gross income including supplementary payments less operating expenses and depreciation charges) amounted to \$1,259,711,000 in 1947. The figure is the highest recorded since the compilation of comparable statistics back to 1938 and compares with an income figure of \$1,160,755,000 in 1946 and the previously recorded high of \$1,239,985,000 in 1944.

Supplementary payments comprise the amounts paid under the Prairie Farm Assistance Act, the Prairie Farm Income Order and the Wheat Acreage Reduction Act and are included in the year in which they were disbursed. These payments amounted to \$11,576,000 in 1947 as compared with \$16,950,000 in 1946.

#### *Net Income of Farm Operators from Farming Operations, 1944-47*

Item	1944	1945	1946	1947 <sup>1</sup>
	\$'000	\$'000	\$'000	\$'000
Cash income.....	1,828,949	1,694,542	1,752,682	1,990,619
Income in kind.....	275,790	284,602	300,557	323,465
Value of changes in inventory.....	-123,910	-237,641	-41,224	-100,111
Gross income.....	1,980,829	1,741,503	2,012,015	2,213,973
Operating expenses and depreciation charges.....	758,716	766,912	868,210	965,838
Net income excluding supplementary payments.....	1,222,113	974,591	1,143,805	1,248,135
Supplementary payments.....	17,872	6,440	16,950	11,576
Net income of farm operators from farming operations.....	1,239,985	981,031	1,160,755	1,259,711

<sup>1</sup> Preliminary.

Increases in the receipts from the sale of farm products and the value of the income in kind more than offset the substantial decline in the value of the changes in year-end inventories to give, in 1947, the highest gross farm income on record.

A preliminary estimate indicates that, during 1947, Canadian farmers' cash returns from the sale of farm products established an all-time recorded high of \$1,990,619,000. When compared with the revised estimate for 1946 of \$1,752,682,000 the 1947 figure represents a gain of \$237,937,000 or 13·6 p.c. As against the previously recorded high of \$1,828,949,000 in 1944, the 1947 figure exhibits an increase of \$161,670,000 or 8·8 p.c.

An increase of \$128,569,000 in 1947 as compared with 1946 from grain, seed and hay is largely attributable to generally higher prices and substantial payments made on wheat participation certificates as well as adjustment payments made on wheat and barley deliveries. Somewhat higher prices and increased marketings of hogs served to offset the decline in the marketings of other classes of live stock to give total receipts from the sale of live stock of \$590,074,000 in 1947 as against \$574,629,000 a year earlier. Increased cash

*Desirable points in  
a good beef bull  
being demonstrated  
during the shooting of  
the shooting of  
a live-stock film  
at the Ontario  
Agricultural  
College.*



returns were also realized from the sale of dairy products, fruits and special crops such as tobacco, sugar beets, honey and maple products.

Continued liquidation of Canada's live-stock population and smaller grain crops during 1947 resulted in lower year-end inventories than for 1946. The decline in the numbers of live stock and the quantities of grain as between the beginning and end of 1947 was valued at \$100,111,000 and compares with a value of such inventory reduction for 1946 of \$41,224,000.

The increase in farm operating expenses and depreciation charges which became quite noticeable in 1946 continued during 1947 and reached an estimated figure of \$965,838,000 as against \$868,210,000 in the preceding year.

**Analysis of Cash Income.**—Annual estimates of cash income from the sale of farm products represent the gross returns from all products sold off farms valued at prices received by farmers. The estimates include those Federal and Provincial Government payments that farmers receive as subsidies to prices but they do not include the supplementary payments defined at p. 110.

#### *Cash Income from the Sale of Farm Products, by Provinces, 1944-47*

Province	1944	1945	1946	1947
	\$'000	\$'000	\$'000	\$'000
Prince Edward Island.....	13,734	16,468	17,217	18,978
Nova Scotia.....	28,008	27,274	34,193	33,098
New Brunswick.....	33,116	35,604	35,855	38,273
Quebec.....	222,562	236,390	251,869	295,824
Ontario.....	404,802	453,078	472,927	546,290
Manitoba.....	176,800	153,182	170,823	185,893
Saskatchewan.....	543,690	409,618	399,182	434,104
Alberta.....	338,101	287,922	285,010	345,480
British Columbia.....	68,136	75,006	85,606	92,679
<b>Totals.....</b>	<b>1,828,949</b>	<b>1,694,542</b>	<b>1,752,682</b>	<b>1,990,619</b>

*Cash Income from the Sale of Farm Products, by Sources, 1947*

Source	Cash Income	Source	Cash Income
	\$'000		\$'000
Grains, seeds and hay.....	654,686	Miscellaneous farm products....	32,529
Vegetables and other field crops...	144,849	Forest products sold off farms...	55,414
Live stock.....	590,074	Fur farming.....	16,220
Dairy products.....	324,394		
Fruits.....	48,868		
Eggs, wool, honey and maple products.....	123,585	<b>Cash Income from Farm Products.....</b>	<b>1,990,619</b>

*Farm Wage Rates*

Scarcity of labour and the maintenance of a high level of farm income were important factors contributing to the continuing rise in farm wage rates in 1948. By Aug. 15, 1948, average wage rates paid to farm help were at their highest level since comparable statistics became available in 1940. At that date average wages were \$4.40 per day and \$86.79 per month where the employer provided board as compared with rates of \$4.13 and \$82.75, respectively, at the same date a year earlier. Where the employee provided his own board, the average rates were \$5.44 per day and \$116.67 per month as against \$5.17 and \$109.03, respectively, as reported Aug. 15, 1947.

*Field Crops*

**Wheat.**—During the crop year 1947-48 the gap between world grain supplies and requirements was very wide. Crops in the normal deficit areas of the world were poor and, despite large shipments from the major exporting nations, the grain supply situation remained quite stringent throughout the crop year. Bread rations had to be maintained and even reduced in some countries. At the same time plans for the rehabilitation of live stock were postponed and it was not possible to build up reserve grain stocks of any consequence. Canada's 1947 crop was not large and with carry-over stocks at July 1, 1947, at near minimum levels, exports of wheat and flour in terms of wheat reached only 195,000,000 bu., the smallest annual shipment of any crop year since 1938-39, when 160,000,000 bu. were exported.

Although Canada's 1948 wheat acreage of 24,100,000 acres was down slightly from 1947, the November estimate of production placed the current crop at 393,000,000 bu., some 56,000,000 bu. greater than the previous year. Crop prospects were disappointing in many areas of the Prairie Provinces at the end of June but were considerably improved by timely rains in July during the critical growing period and by generally favourable maturing and harvesting conditions in August and September. In the Prairie Provinces the 1948 wheat crop was estimated at 363,000,000 bu. as compared with 315,000,000 bu. in 1947 and 383,000,000 bu. for the ten-year (1938-47) average. Of the remaining 30,000,000 bu. of Canada's wheat crop, Ontario's contribution of 27,200,000 bu. represented the principal part. All but 1,200,000 bu. of Ontario's 1948 crop was fall wheat.

Despite the lower wheat carry-over in 1948, Canada's total wheat supplies, based on the November estimate of production, were larger than

for 1947. In 1947-48 Canada's total wheat supplies were 424,000,000 bu., comprising carry-over stocks in all positions of 87,000,000 bu. and new crop production of 337,000,000 bu. Carry-over stocks of 76,000,000 bu. at the beginning of the 1948-49 crop year, together with the indicated production of 393,000,000 bu. would put total supplies at 469,000,000 bu. Assuming domestic requirements of 150,000,000 bu. during the 1948-49 crop year, and providing the carry-over at July 31, 1949, falls to the level existing at July 31, 1948, a surplus of 243,000,000 bu. would remain for export. Of this potential surplus, 140,000,000 bu. are earmarked for delivery as wheat and flour under the United Kingdom contract, leaving approximately 103,000,000 bu. for export to other countries.

Effective Apr. 1, 1948, an increase of 20 cents per bu. was made in the initial payment to wheat producers in the Prairie Provinces. This increase raised the initial payment to \$1.55 per bu., basis No. 1 Northern in store Fort William-Port Arthur, and was made retroactive to Aug. 1, 1945. At the present time Canada is supplying the United Kingdom with wheat at \$2.00 per bushel plus 5 cents carrying charges, basis Fort William-Port Arthur, under the provisions of the third year of the United Kingdom Wheat Agreement. In accordance with the terms of this Agreement Britain is to receive 140,000,000 bu. of wheat and flour in terms of wheat during each of the crop years 1948-49 and 1949-50. The price for wheat sales to the United Kingdom for the crop year 1949-50 has not yet been announced but according to the terms of the contract must be negotiated and settled not later than Dec. 31, 1948. The price of wheat for domestic use is still under control and at the beginning of the current crop year was raised to \$2.00 per bu. plus 5 cents carrying charges for No. 1 Northern in store Fort William-Port Arthur. To offset the possible effect of this increase on the price of flour and bread the Government announced at the same time a refund of 45 cents per bu. on sales of western wheat to millers and other processors of wheat for human consumption; on Sept. 1, 1948, this rebate was increased to 46½ cents per bu.

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*Plot of wheat at the Dominion Rust Research Laboratory at Winnipeg being inoculated with rust spores in a susceptibility test of new wheat.*



Wheat prices to countries other than the United Kingdom are established by the Canadian Wheat Board, and the average of the monthly quotations for August and September, 1948, was \$2.40 per bu. for No. 1 Northern in store Fort William-Port Arthur.

### ***Production, Imports and Exports of Wheat, Years Ended July 31, 1939-49***

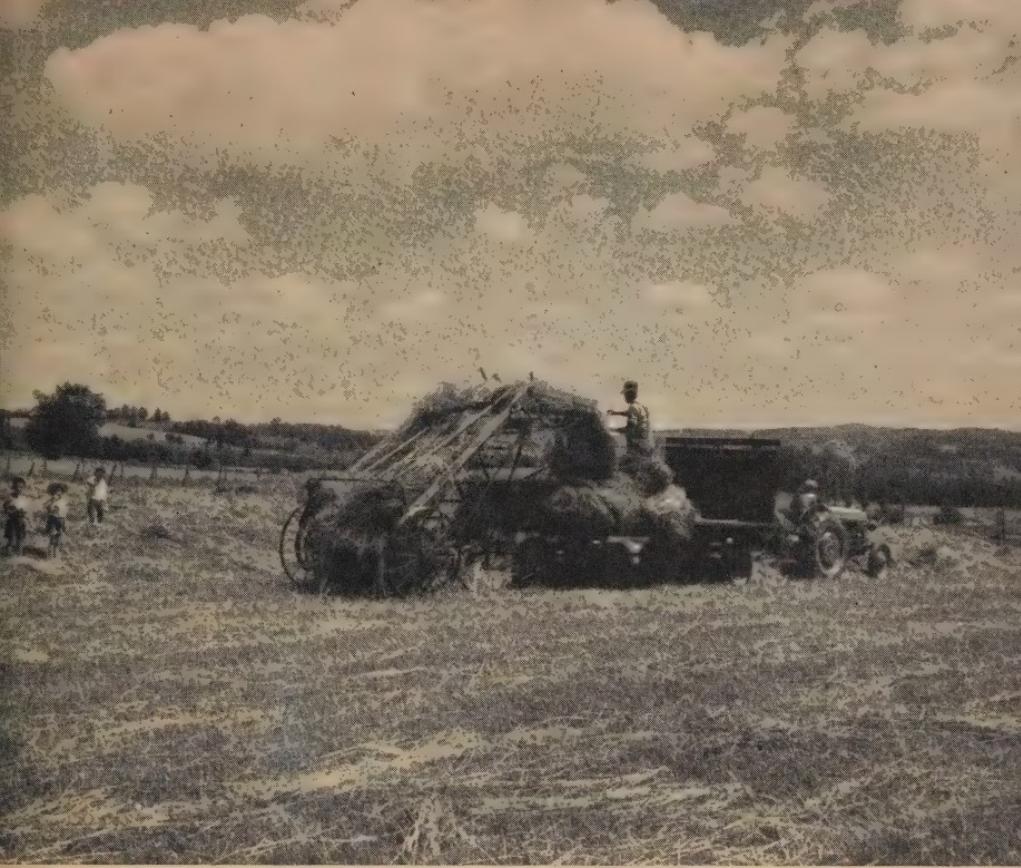
**NOTE.**—Wheat flour has been converted into bushels of wheat at the uniform average rate of  $\frac{1}{4}$  bu. to the barrel of 196 lb. of flour.

Year ended July 31—	Production <sup>1</sup> '000 bu.	Imports of Wheat and Flour		Exports of Wheat and Flour bu.
		bu.	bu.	
1939.....	360,010	1,891,177	160,034,188	
1940.....	520,623	444,368	192,674,369	
1941.....	540,190	122,036	231,206,246	
1942.....	314,825	29,103	225,828,434	
1943.....	556,684	3,022	214,700,902	
1944.....	284,460	432,931	343,755,320	
1945.....	416,635	404,547	342,945,515	
1946.....	318,512	74,765	343,183,509 <sup>4</sup>	
1947.....	413,725	15,584	239,421,274 <sup>4</sup>	
1948 <sup>2</sup> .....	336,758	824,677	194,982,342	
1949 <sup>3</sup> .....	393,342	8	8	

<sup>1</sup> Previous year's harvested crop.      <sup>2</sup> Subject to revision.      <sup>3</sup> Not available at time of going to press.      <sup>4</sup> Exports for the period August, 1945, to July, 1948, have been revised to remove effect of time-lag in returns made by customs.

**Coarse Grains.**—While the area sown to oats in Canada in 1948 was slightly higher than in 1947, it was still well below pre-war and wartime averages. Indicated yields per acre on the other hand exceeded both the 1947 and long-time averages. Canada's 1948 oat production, estimated at 357,700,000 bu. was 28 p.c. greater than that of 1947 but 13 p.c. below the ten-year (1938-47) average of 410,700,000 bu. An increase of over 500,000 acres in Ontario, coupled with significantly higher yields per acre, resulted in an increase of 85 p.c. over the 1947 production. While gains in oat production in other parts of Canada were not as great, all provinces with the exception of Alberta and British Columbia contributed to the increase over the 1947 yield. Although acreage seeded to barley in 1948 dropped almost 1,000,000 acres from 1947 levels, the estimated production of 154,600,000 bu. was 13,200,000 bu. greater than the 1947 crop. The 1948 crop exceeded that of 1947 in all provinces except Prince Edward Island, Saskatchewan and British Columbia with Manitoba and Alberta accounting for most of the increase. The indicated yield per acre of 23.8 bu. for all Canada was practically the same as the long-time average and well above the 1947 figure of 18.9 bu. per acre.

With a more favourable coarse grains supply in prospect, export restrictions were progressively eased during the latter part of the 1947-48 crop year. The payment of equalization fees, which had been introduced along with the price ceilings on oats and barley, was discontinued at the beginning of the 1948-49 crop year although export permits are still required. On Aug. 2, 1948, the Canadian Wheat Board announced that it would continue to support prices of No. 1 feed oats and No. 1 feed barley until July 31, 1949, and other grades until further notice. Support prices for No. 1 feed oats and



*Loading hay at an Eastern Township farm in Quebec.*

barley remained unchanged at  $61\frac{1}{2}$  cents and 90 cents per bu., respectively. Prices of other grades of oats and barley increased slightly over the support levels made effective Mar. 18, 1947, the current support price for No. 1 Canada Western oats being  $66\frac{1}{2}$  cents per bu. and No. 1 Canada Western barley 94 cents per bu., both basis in store Fort William-Port Arthur, with prices of other grades bearing appropriate differentials.

While potential supplies of oats and barley for 1948-49 are considerably below the abnormally high levels of the war years, a quite favourable relationship exists when comparison is made with the pre-war period. It is also observed that supplies for 1948-49 are significantly greater than the quantities available during the crop year just completed. Of significance, too, is the fact that production in 1948 is more evenly distributed between Eastern and Western Canada than was the case in 1947. With production east of the Great Lakes greatly improved in 1948, requirements of eastern feeders under the Freight Assistance Policy, which has been extended until July 31, 1949, should be less than during 1947-48. Since domestic requirements for feed grain have been dropping off in line with the general decline in live-stock populations from the wartime highs, it is probable that with the increased

supplies of oats and barley available substantial quantities of Canadian oats and barley may be exported during 1948-49.

With high prices for rye prevailing up to the latter part of the 1947-48 crop year, Canadian farmers sowed 2,100,000 acres of rye in 1948, almost double the 1947 acreage. The average yield for all rye, estimated at 12.1 bu. per acre, approached the long-term average and was slightly higher than that of 1947. With a persistent shortage of world bread grains, export demand remained high during 1947-48 and approximately two-thirds of the Canadian rye supply was exported. The carry-over of rye at the end of the three crop years 1946-48, has been at near-minimum levels, but with the 1948 estimated production of 25,300,000 bu., second only to the record 1922 production, Canada has substantially increased rye supplies for disposal during the 1948-49 crop year.

In the spring of 1947 an easing off in the world supply situation relative to oil-bearing seeds became apparent. In view of this the Canadian Wheat Board was instructed to support the flax price at \$4.00 per bu. for the top grades, basis delivered at Montreal or in store Fort William-Port Arthur for the 1948-49 crop year, should the market drop to that level. During the crop year 1947-48 farmers had been guaranteed a minimum price of \$5.00 per bu. and actually received a total payment of \$5.50 per bu. Despite the announced change in policy, Canadian farmers seeded 1,900,000 acres to flax in 1948, a considerable increase over the 1947 seeding of 1,600,000 acres. The November estimate of production placed the 1948 flax crop at 17,400,000 bu., as compared with the 1947 crop of 12,200,000 bu. With a carry-over into the 1948-49 crop year of 3,300,000 bu. and, providing the November estimate is fully realized, Canada's supply of flaxseed for the current crop year will amount to about 21,000,000 bu.

#### Acreage, Production and Value of Field Crops, 1947 and 1948

Crop	Revised Estimate 1947 Crops			Third Estimate 1948 Crops		
	Area '000 acres	Production '000 bu.	Gross Farm Value '\$'000	Area '000 acres	Production '000 bu.	Gross Farm Value <sup>1</sup> '\$'000
Wheat.....	24,260	336,758	455,436	24,106	393,342	550,427
Oats.....	11,049	278,670	215,072	11,201	357,703	251,975
Barley.....	7,465	141,372	146,553	6,495	154,643	144,648
Rye.....	1,156	13,217	43,517	2,103	25,348	35,114
Peas, dry.....	128	1,788	5,138	82	1,469	4,283
Beans, dry.....	97	1,446	7,721	92	1,650	6,874
Soy beans.....	61,000	1,110,000	3,397	94,000	1,683,000	3,955
Buckwheat.....	290	5,187	6,075	186	3,911	4,904
Mixed grains.....	1,150	34,929	32,635	1,542	62,067	60,081
Flaxseed.....	1,571	12,241	64,135	1,935	17,353	66,358
Corn, shelled.....	176	6,682	12,506	252	12,417	17,218
Potatoes.....	497	45,114	99,362	508	55,461	83,881
Turnips, etc. <sup>2</sup> .....	114	21,019	19,392	110	22,673	20,521
Hay and clover.....	10,202	16,193	251,154	9,748	16,032	248,249
Alfalfa.....	1,135	2,560	38,965	1,317	3,045	50,910
Fodder corn.....	475	3,867	19,654	539	5,139	29,334
Grain hay.....	888,500	1,350,100	9,264	848,000	1,204,000	10,080
Sugar beets.....	59	606	8,684	59	611	6,085

<sup>1</sup> First estimate of value.

<sup>2</sup> Excluding production in the Prairie Provinces.

Cattle on a ranch in  
Western Canada being  
rounded up for branding  
and inoculation.



## Live Stock

Numbers of live stock on farms in Canada are shown for recent years in the following table.

*Numbers of Principal Species of Live Stock on Farms, June 1, 1939-48*

Year	Horses '000	Cattle '000	Hogs '000	Sheep and Lambs '000
1939.....	2,761	8,374	4,364	2,911
1940.....	2,780	8,380	6,002	2,887
1941.....	2,789	8,517	6,081	2,840
1942.....	2,816	8,945	7,125	3,197
1943.....	2,775	9,665	8,148	3,459
1944.....	2,735	10,346	7,741	3,726
1945.....	2,585	10,759	6,026	3,622
1946.....	2,200	9,665	4,910	2,942
1947.....	2,032	9,718	5,473	2,707
1948.....	1,905	9,470	4,463	2,251

Canada's live-stock industry grew substantially during the war years, hog numbers reaching their peak in 1943 with over 8,000,000 and cattle in 1945 with 10,759,000 on farms. Sheep numbers were highest in 1944 and have since declined steadily to 2,251,000 in 1948 which is considerably lower than pre-war figures. Though the numbers of cattle on farms have declined about 12 p.c. since 1945, they are still considerably above the 1939 level. The number of horses has been declining for many years and in 1948 was below 2,000,000 for the first time since 1906.

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*White leghorns on a specialized poultry farm, where 4,000 adult stock range on 26 acres of grass and alfalfa.*



## Poultry and Eggs

The number of domestic fowl—hens, cocks and chickens—on farms on June 1, 1947, reached a peak at 83,914,100. The previous record was 79,743,700 reached on June 1, 1944. The publicity work of the Federal Department of Agriculture for increased chick production in the fall, winter and spring of 1946-47 undoubtedly increased the desire of poultry producers to help the people of the United Kingdom.

While there was a reduction in the numbers of geese and ducks on farms on June 1, 1947, compared with the previous year, turkeys increased to 3,165,800 or by 20 p.c. over 1946. The peak in turkey production was reached in 1942. Farm poultry-meat production during the year increased to 301,389,000 lb. as compared with 265,171,000 lb. in 1946. Egg production was also very high, having increased in each province. The total amounted to 373,696,000 doz. or 12,456,500 cases, a 15.5 p.c. increase over 1946.

### *Farm Poultry-Meat and Farm-Egg Production, by Economic Areas, 1946 and 1947*

Economic Area and Year	Poultry-Meat Production			Egg Production		
	Marketed	Farm- Home Consumed	Total	Sold	Farm- Home Consumed	Total <sup>1</sup>
	'000 lb.	'000 lb.	'000 lb.	'000 doz.	'000 doz.	'000 doz.
Maritimes.....1946	11,651	4,884	16,535	16,076	5,088	21,798
1947	12,140	6,693	18,833	18,909	5,509	24,780
Que. and Ont.1946	113,613	27,739	141,352	145,628	30,270	182,080
1947	127,160	27,341	154,501	177,568	31,747	215,434
Prairies.....1946	53,850	40,466	94,316	68,429	22,044	94,497
1947	62,578	46,766	109,344	74,831	23,724	104,416
B.C.....1946	10,413	2,555	12,968	21,509	2,442	25,188
1947	15,680	3,031	18,711	24,937	2,810	29,066
<b>Totals.....1946</b>	<b>189,527</b>	<b>75,644</b>	<b>265,171</b>	<b>251,642</b>	<b>59,844</b>	<b>323,563</b>
<b>1947</b>	<b>217,558</b>	<b>83,831</b>	<b>301,389</b>	<b>296,245</b>	<b>63,790</b>	<b>373,696</b>

<sup>1</sup> Includes eggs for hatching on farms.

## Dairying

Dairy production during the war period was stimulated by the payment of producer-subsidies on butter-fat, fluid milk, milk for cheese and milk for concentration. Similarly, the demand for fluid milk was increased by the payment of consumer subsidies from December, 1942, to June, 1946. With the removal of the producer-subsidy on fluid milk at the end of September, 1946, the provincial authorities revised price schedules or agreements to compensate producers for loss of revenue represented by subsidy payments, and also to cover increasing costs of production. Price advances which went into effect on Oct. 1, 1946, and subsequent to that date, therefore added a considerable amount to farm income. The prices received by farmers in September, 1948—with those for September, 1946, in parentheses—were: fluid sales (milk and cream combined) \$3.70 (\$2.73) per hundred; cheese milk \$2.82 (\$2.07) per hundred; creamery butter-fat 72.4 (50.4) cents per lb.

**Milk Production.**—During 1947, 17,213,987,000 lb. of milk were produced on farms. The increase of approximately 258,434,000 lb. from the 1946 production was shared by all the provinces except Prince Edward Island, Nova Scotia, Saskatchewan and British Columbia. Of the 1947 production, 61·1 p.c. was used in manufactured products. The quantity used for creamery butter increased 7·1 p.c. while fluid sales declined 2·1 p.c.

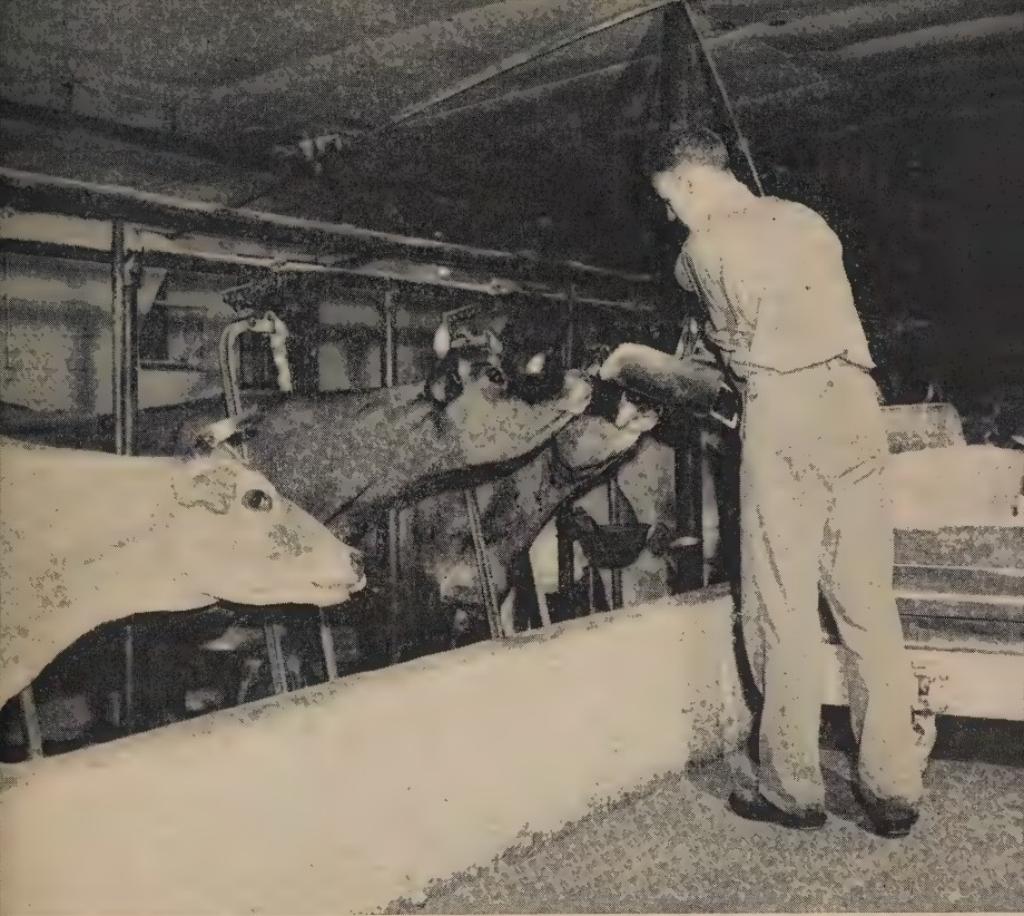
**Butter Production.**—Butter production in 1947 increased 7 p.c. as compared with production in 1946, but represented a decline of approximately the same percentage as compared with 1943.

**Cheese Production.**—Cheese production in 1947 amounted to 123,456,000 lb., a decline of 17·5 p.c. from the 1946 production and of 40·7 p.c. from that of 1942. The cheese contract with the United Kingdom for the year ended Mar. 31, 1948, called for delivery of 125,000,000 lb. at 25 cents per lb. at factory shipping point. Shipments, however, amounted to only 56,442,000 lb. Under the 1948-49 contract, Canada is required to ship only 50,000,000 lb. to the United Kingdom, but the price has been advanced to 30 cents per lb. f.o.b. factory.

**Income and Values.**—Dairy production has proved to be one of the more profitable branches of farming during the post-war period. This situation has arisen from the demand for milk and milk products, both for export and domestic use, and as a result of increased prices which contributed considerably to the farm value of milk production. Total income from the sale of dairy products amounted to \$324,394,000 in 1947, an increase of approximately \$37,995,000 compared with that of the previous year. This



*Curds being placed in cheese molds ready for the compression process.*



*Feeding Jersey cows on a dairy farm near Ottawa.*

represented 16 p.c. of the total farm income of Canada as compared with 12 p.c. in 1939. Although prices were high, the quantities produced did not keep pace with the increased output in other lines of farming.

The total farm value of dairy production, which includes sales income, income in kind and milk fed to live stock, amounted to \$419,787,000 in 1947; the total value of dairy production, which comprises manufactured products and fluid sales valued at the factory, as well as products held on the farm, showed a valuation of \$535,740,000. Both totals were higher than for 1946.

**Domestic Disappearance.**—The daily per capita consumption of fluid milk and cream on a milk basis was 0.97 pt. in 1947 as compared with 1.02 pt. in 1946. The annual domestic disappearance of butter in 1947 (creamery, dairy and whey) was 27.93 lb. per capita, which compares with 25.75 lb. in 1946. The disappearance of cheese advanced almost continually from 1942 to 1945 when it reached the high point of 5.24 lb. The per capita disappearance in 1947 was 5.08 lb. The disappearance of concentrated whole-milk products advanced from less than 11 lb. per capita in 1940 to over 16 lb. in 1947. All products, in terms of milk, showed an increase of 54 lb. per capita between 1946 and 1947, amounting in the latter year to approximately 1,233 lb.

## Dairy Production, by Economic Areas, 1946 and 1947

Economic Area and Year	Milk		Milk Products			
	Fluid Sales	Total Milk	Butter		Cheddar Cheese	Evap- orated Milk
			Creamery	Dairy		
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Maritimes.....	241,190	1,067,853	17,805	7,742	1,707	5,165
	234,513	1,057,384	17,185	8,014	1,395	4,082
Que. and Ont. ....	3,016,257	10,478,765	154,526	15,567	136,917	149,862
	2,943,767	10,711,148	174,557	16,303	110,912	169,828
Prairies.....	671,232	4,772,467	93,828	29,283	6,786	13,005
	659,817	4,817,298	94,663	30,281	6,863	13,698
B.C. ....	325,321	636,468	5,332	1,633	689	23,554
	324,442	628,157	4,436	1,697	533	24,286
<b>Totals....</b>		<b>4,254,000</b>	<b>16,955,553</b>	<b>271,491</b>	<b>54,225</b>	<b>146,099<sup>1</sup></b>
		<b>1946</b>	<b>1947</b>	<b>290,841</b>	<b>56,295</b>	<b>119,703<sup>1</sup></b>
						<b>191,586</b>
						<b>211,894</b>

<sup>1</sup> Total cheese production amounted to 149,624,000 lb. in 1946 and 123,456,000 lb. in 1947.

## Special Crops

**Tobacco.**—The expanding acreage of tobacco reached a peak in 1947 when 125,267 acres were harvested. This was the greatest acreage ever planted in Canada and is not likely to be exceeded within the near future. A sharp decline took place in 1948 when 110,449 acres (October, 1948) were under crop, of which 90,874 acres were planted to flue-cured tobacco and 10,865 acres to burley tobacco. Other types grown were cigar with 5,710 acres, dark with 1,500 acres and pipe with 1,500 acres. Most of the tobacco is grown in Ontario where 98,275 acres were under crop in 1948. The acreage in Quebec in the same year was 12,150 acres while only 24 acres were planted in British Columbia. The second estimate of the 1948 crop (Oct. 13), indicated that production would amount to 109,055,000 lb.

**Sugar Beets.**—The area of sugar beets in 1948 (Nov. 16), estimated at 58,600 acres, was 100 acres more than was grown in 1947. Average yields were up slightly at 10.42 tons per acre. The crop, estimated at 610,500 tons, was slightly larger than the 605,600 ton harvest in 1947. A substantial increase in both acreage and average yield in Quebec brought the crop in that Province to 27,000 tons compared with the 1947 crop of 10,500 tons. In Ontario also the crop estimated at 180,000 tons was larger than that of the previous year. The area planted was 600 acres smaller but the yield per acre was considerably better. Increased acreage and yields brought the Manitoba crop to 80,500 tons in 1948, 15,700 tons greater than in 1947. In Alberta the acreage declined slightly from 29,300 in 1947 to 28,200 in 1948. The average yield, estimated at 11.45 tons, was approximately one ton below the 1947 level and the crop as a consequence was smaller at 323,000 tons.

**Maple Products.**—The production of maple products in 1948 returned to normal levels following the unusually large crop of the previous year. Total production, expressed as syrup, amounted to 2,394,000 gal. In Quebec, where the bulk of the crop is produced, 1,750,000 gal. of syrup and 2,187,000 lb. of sugar were made. In Ontario, next in importance as a maple-syrup producing province, 389,000 gal. of syrup and 23,000 lb. of sugar were made. In New Brunswick 12,000 gal. of syrup and 124,000 lb. of sugar were harvested, while in Nova Scotia, the only other producing province, there were 8,000 gal. of syrup and 16,000 lb. of sugar.

**Honey.**—Estimates of production (Sept. 20) indicate that the honey crop of 1948 will be the second largest on record. Growers reported that 43,938,000 lb. would be gathered compared with the 1947 harvest of 37,078,000 lb. While the number of colonies was down somewhat at 561,700 compared with 588,700 in 1947, the average yield per colony was 11·5 lb. greater at 74·5 lb. Production in 1948 for the different provinces with 1947 figures in parentheses was: Prince Edward Island, 70,000 lb. (57,000 lb.); Nova Scotia, 115,000 lb. (112,000 lb.); New Brunswick, 182,000 lb. (142,000 lb.); Quebec, 4,235,000 lb. (5,399,000 lb.); Ontario, 15,781,000 lb. (12,290,000 lb.); Manitoba, 7,498,000 lb. (5,180,000 lb.); Saskatchewan, 5,038,000 lb. (6,232,000 lb.); Alberta, 10,074,000 lb. (6,507,000 lb.); and British Columbia, 945,000 lb. (1,159,000 lb.).

**Seed Crops.**—Production of most hay and pasture seed crops was substantially heavier in 1948 than in 1947. Timothy, brome grass, Canadian blue grass and bent grass showed lower yields than in 1947. Production by types in 1948, with comparable data for 1947 in parentheses was: alfalfa, 12,731,000 lb. (10,723,000 lb.); red clover, 8,805,000 lb. (5,476,000 lb.); alsike, 6,787,000 lb. (3,071,000 lb.); sweet clover, 15,410,000 lb. (12,210,000 lb.); timothy, 7,695,000 lb. (11,170,000 lb.); brome grass, 7,510,000 lb. (7,594,000 lb.); crested wheat grass, 636,000 lb. (575,000 lb.); creeping red fescue, 1,461,000 lb. (562,000 lb.); Canadian blue grass, 440,000 lb. (475,000 lb.).

High - school girls cultivating tomato plants on a southern Ontario market farm.



lb.); Kentucky blue grass, 600,000 lb. (300,000 lb.); and bent grass, 2,000 lb. (3,000 lb.).

The vegetable seed industry expanded rapidly during the war years but has since contracted considerably from the peak. While some kinds, such as bean, corn, mangel, pea and sugar beet, have remained at high levels of production, most types are down sharply. Production in 1948 with comparable figures for 1947 in parentheses amounted to: asparagus, 10,200 lb. (5,245 lb.); bean, 706,000 lb.\* (561,664 lb.); beet, 29,200 lb. (56,674 lb.); cabbage, 2,800 lb. (2,505 lb.); carrot, 107,600 lb. (32,458 lb.); cauliflower, 550 lb. (992 lb.); corn, 466,000 lb.\* (322,500 lb.); cucumber, 23,000 lb. (8,407 lb.); leek, 500 lb. (1,130 lb.); lettuce, 39,800 lb. (20,454 lb.); mangel, 238,500 lb. (111,260 lb.); muskmelon, 300 lb. (1,320 lb.); onion, 109,850 lb. (83,895 lb.); parsnip, 2,900 lb. (4,680 lb.); pea, 11,612,000 lb.\* (21,717,442 lb.); pepper, 600 lb. (713 lb.); pumpkin, 2,000 lb. (2,904 lb.); radish, 16,500 lb. (68,260 lb.); spinach, 12,500 lb. (20,151 lb.); squash and marrow, 2,000 lb. (11,198 lb.); sugar beet, 550,000 lb. (322,645 lb.); swede, 31,000 lb. (13,968 lb.); swiss chard, 400 lb. (10 lb.); tomato, 1,840 lb. (4,546 lb.); and watermelon, 600 lb. (150 lb.).

**Fruit.**—British Columbia is the most important fruit-producing province, both from the standpoint of volume and of variety of fruit grown. Ontario ranks second, followed by Nova Scotia, Quebec and New Brunswick. Fruit is grown in the other four provinces, but due to climatic conditions production is on a very limited scale.

In 1948 early spring prospects for the fruit crops were excellent. The trees blossomed freely in Eastern Canada but the 'set' of fruit, particularly in the apple orchards of the Maritime Provinces, Quebec and Ontario, was disappointing. Various reasons were given for the light crops and it is generally believed that poor pollination and lack of tree vigour resulting from a severe attack of scab in 1947 were the chief factors. In all provinces the late tree-fruits failed to develop as expected, a result of the prolonged dry weather in August and September. Peaches in Ontario were particularly hard hit. The October, 1948, estimates of production with final estimates for 1947 in parentheses were: apples, 13,056,000 bu. (15,619,000 bu.); pears, 697,000 bu. (966,000 bu.); plums and prunes, 681,000 bu. (723,000 bu.); peaches, 1,497,000 bu. (1,681,000 bu.); apricots, 200,000 bu. (116,000 bu.); cherries, 344,000 bu. (299,000 bu.); strawberries, 28,044,000 qt. (25,659,000 qt.); raspberries, 18,833,000 qt. (18,212,000 qt.); loganberries, 1,926,000 lb. (1,413,000 lb.); and grapes, 60,560,000 lb. (73,803,000 lb.).

The normal export market for Canadian apples is the United Kingdom. During the War the usual channels of trade were disrupted and, with the assistance of the Canadian Government, other means of disposing of the crop were undertaken. During the 1946-47 crop year fairly large shipments were again sent to the British market but, when the United Kingdom imposed import restrictions to conserve her dollar credits, this trade stopped abruptly in 1947. There is no immediate prospect that this market will be open in the near future and Canadian producers must look elsewhere for an outlet for the crop. The Federal Government undertook to assist the Nova Scotia producers in the 1948 season by guaranteeing a minimum price on 700,000 barrels.

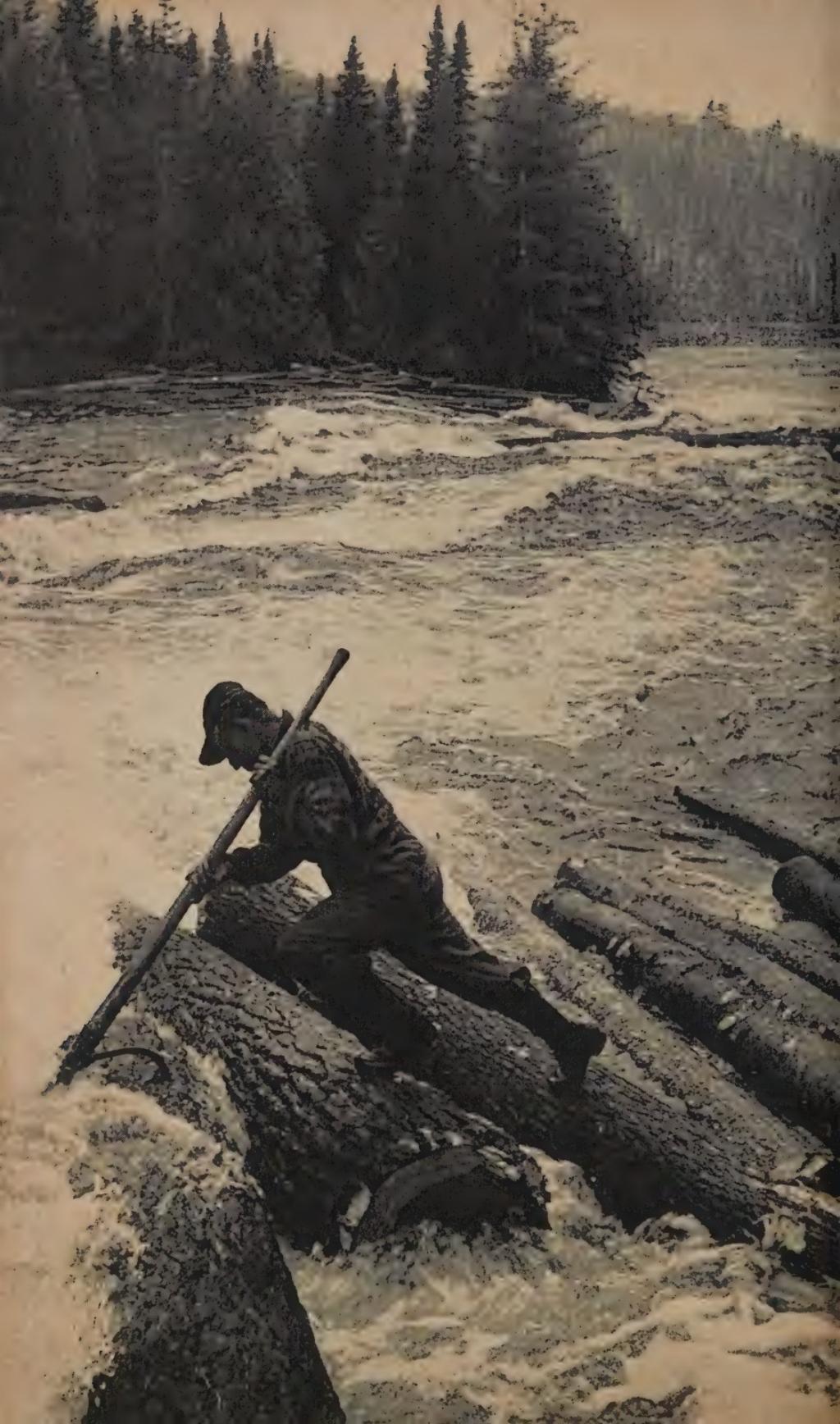
\* Incomplete data.

Wrapping and  
packing apples  
for shipment at  
Penticton, B.C.



### Values of Fruits Produced, 1944-47, with Averages, 1939-43

Fruit	Five-Year Average 1939-43	1944	1945	1946	1947
	\$	\$	\$	\$	\$
Apples.....	11,913,000	22,807,000	12,857,000	27,196,000	22,840,000
Pears.....	1,113,000	2,007,000	1,582,000	2,278,000	2,178,000
Plums and prunes....	667,000	1,375,000	1,270,000	1,755,000	1,471,000
Peaches.....	2,423,000	4,534,000	4,502,000	5,356,000	4,128,000
Apricots.....	156,000	489,000	319,000	446,000	327,000
Cherries.....	1,144,000	1,909,000	1,724,000	2,113,000	2,128,000
Totals, Tree Fruits..	17,416,000	33,121,000	22,254,000	39,144,000	33,072,000
Strawberries.....	2,356,000	2,303,000	4,186,000	4,498,000	5,404,000
Raspberries.....	1,561,000	2,682,000	3,147,000	3,364,000	4,354,000
Grapes.....	1,361,000	2,380,000	2,543,000	3,160,000	3,568,000
Loganberries.....	121,000	196,000	140,000	222,000	213,000
Totals, Small Fruits..	5,399,000	7,561,000	10,016,000	11,244,000	13,539,000
<b>Totals, All Fruits..</b>	<b>22,815,000</b>	<b>40,682,000</b>	<b>32,270,000</b>	<b>50,388,000</b>	<b>46,611,000</b>



# Forestry

CANADA'S forests cover an area of 1,290,960 sq. miles, or 37 p.c. of the total land area of the country, but a considerable part of these vast forests is not suitable for commercial operations, either because it is too difficult and expensive to reach or because the tree growth is not of satisfactory size and quality. The present accessible productive portion of the forest covers 435,000 sq. miles and it is from this area that the whole output of sawlogs, pulpwood, fuelwood and other primary products is obtained. About 378,000 sq. miles of forest, classed as productive but not at present accessible, form a reserve for the future when transportation systems may be more highly developed.

By far the larger part of the world demand for wood is for softwood, or coniferous species. Canada possesses the principal reserves of softwoods within the Commonwealth, and these include large supplies of the most desirable varieties—spruces, Douglas fir, western hemlock, western red cedar, and white, red and other pines. In addition, the Eastern Provinces furnish hardwoods, such as birches, maples and elms, which are particularly useful for special purposes.

The total stand of timber of merchantable size is estimated to be 311,201,000,000 cu. ft. of which 191,347,000,000 cu. ft. is accessible. Expressed in commercial terms, the accessible timber is made up of 250,250,000,000 bd. ft. of logs in trees large enough to produce sawlogs and 1,684,710,000 cords of smaller material suitable for pulpwood, fuelwood, posts, mining timbers, etc.

If the forests are not to be impaired, the volumes of wood removed each year to serve useful purposes and the volumes burned or destroyed by pests must be replaced by annual growth. The average annual rate of depletion during the ten years 1936-45, was 3,296,772,000 cu. ft. of which 74·1 p.c. was utilized, 10·7 p.c. was destroyed by forest fires and 15·2 p.c. by insects and disease. Of 2,443,225,000 cu. ft. utilized, 38 p.c. took the form of logs and bolts, 29 p.c. was pulpwood, 29 p.c. fuelwood and the remaining 4 p.c. miscellaneous products. Approximately 7 p.c. of the utilization was exported in unmanufactured form.

The extraordinary demand for forest products which prevailed during the War and post-war years, continued during 1948. Requirements for housing and other forms of construction at home, together with exports, provided a stimulus for high production. However, a decrease in exports of lumber to the United Kingdom resulted in lower production in Eastern Canada which the increased production in British Columbia did not quite offset. Pulp and paper production continued to increase and exports of these products reached new peaks in 1948.

## *Forest Administration*

The forest resources of Canada as a whole are owned and administered by the provinces. The Federal Government, however, is responsible for

*Canada's vast timber resources provide the raw material for one of her basic industries.*

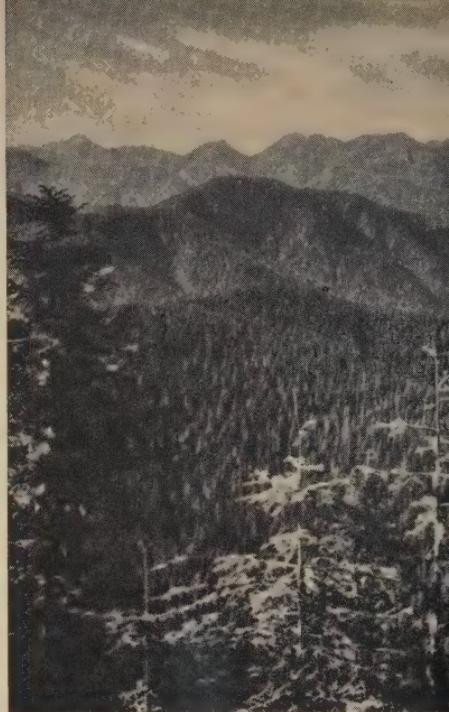
the administration of those of the National Parks, Forest Experiment Stations and Yukon, and the Northwest Territories.

The general policy of both the Federal Government and the Provincial Governments has been to dispose of the timber by means of licences to cut, rather than to sell timber-land outright. Under this system the State retains ownership of the land and control of the cutting operations. Revenue is received in the form of Crown dues or stumpage; ground-rents and fire-protection taxes are collected annually. As new regions are explored, their lands are examined and the agricultural land disposed of. Land suitable only for forest is set aside for timber production, and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province of Canada. Efforts are being made, especially in Quebec and Ontario, to encourage the establishment and maintenance of forests on a community basis.

Forest research activities are assuming great importance. The Dominion Forest Service of the Department of Mines and Resources operates five forest experiment stations with a total area of 227 sq. miles, where investigations of the underlying principles governing the growth of forests and improvement in the rate of increment are made and practical methods of management tested. Specialized work in sylvicultural research and problems connected with forest utilization are also carried on, while the Department of Agriculture conducts research work in the fields of forest pathology and forest entomology. Provincial Governments and industry are also doing much to improve and strengthen administrative and protective services. Since the end of the War there has been increased interest and activity of Provincial Governments in forest inventory surveys, particularly on the part of Ontario and British Columbia as a result of recommendations made by Royal Commissions. The work is being greatly facilitated by the use of air survey methods.

### *Forest Utilization*

**Operations in the Woods.**—Woods operations produce not only the raw material for the sawmills, pulp-mills, wood distillation, charcoal, excelsior and other plants, but they also provide logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts and fence rails, mining timber, piling and other primary products, which are finished in the





woods ready for use or exportation. There are as well a number of minor forest products, such as Christmas trees, maple sugar and syrup, balsam gum, resin, cascara, moss and tanbark, that go to swell the total value of the products of woods operations.

It is often impossible to state for what purpose the timber being cut will eventually be used. Some lumber manufacturers install machinery for cutting-up and barking pulpwood, and direct a part of their spruce and balsam logs to pulp manufacture; other pulp and paper companies operate sawmills in connection with their plants for the purpose of utilizing the larger timber on their limits.

It has been estimated that operations in the woods in Canada in 1946 gave employment during the logging season amounting to 41,638,000 man days, and distributed \$277,000,000 in wages and salaries.

#### *Value of Woods Operations, by Products, 1942-46*

Products	1942	1943	1944	1945	1946
	\$	\$	\$	\$	\$
Logs and bolts.....	92,897,611	99,852,479	115,788,036	120,682,306	150,933,681
Pulpwood.....	103,619,151	110,844,790	124,363,926	146,172,701	183,085,359
Firewood.....	27,264,486	45,152,897	44,332,748	45,193,219	49,544,756
Hewn railway ties.....	878,830	1,138,663	1,289,165	1,339,920	1,131,951
Poles.....	2,663,603	2,032,681	5,217,255	5,663,793	5,302,324
Round mining timber.....	2,169,268	3,418,857	3,509,015	6,437,074	12,149,767
Fence posts.....	1,291,393	1,902,546	2,216,585	2,690,569	3,091,268
Wood for distillation.....	745,408	774,344	887,260	687,102	452,196
Fence rails.....	341,607	464,365	513,135	367,741	605,503
Miscellaneous products.....	2,500,534	3,033,661	3,453,698	5,090,476	6,972,509
Totals.....	234,371,891	268,615,283	301,570,823	334,324,901	413,269,314

**Sawn Lumber.**—Conifers usually form about 95 p.c. of the total cut of all kinds of wood, only 5 p.c. being deciduous-leaved trees or hardwoods. Spruce is the most important kind of lumber sawn, and is produced in every province. Douglas fir, which is produced almost entirely in British Columbia, comes second, with hemlock, white pine, cedar, and yellow birch next in order of importance.

Besides sawn lumber from the sawmills the industry includes the products of shingle, tie, lath, shook, stave, heading and hoop mills and the products of mills for the cutting-up and barking of pulpwood. Sawn lumber produced in 1946 amounted to 5,083,280,000 ft. b.m. valued at \$230,189,699. Shingles numbered 2,646,026 squares at \$14,512,796, sawn ties 6,594,069 at \$7,369,966 and lath 134,591,000 at \$908,564. The gross value of production for the industry as a whole showed an increase of 24·6 p.c. over the total for 1945.

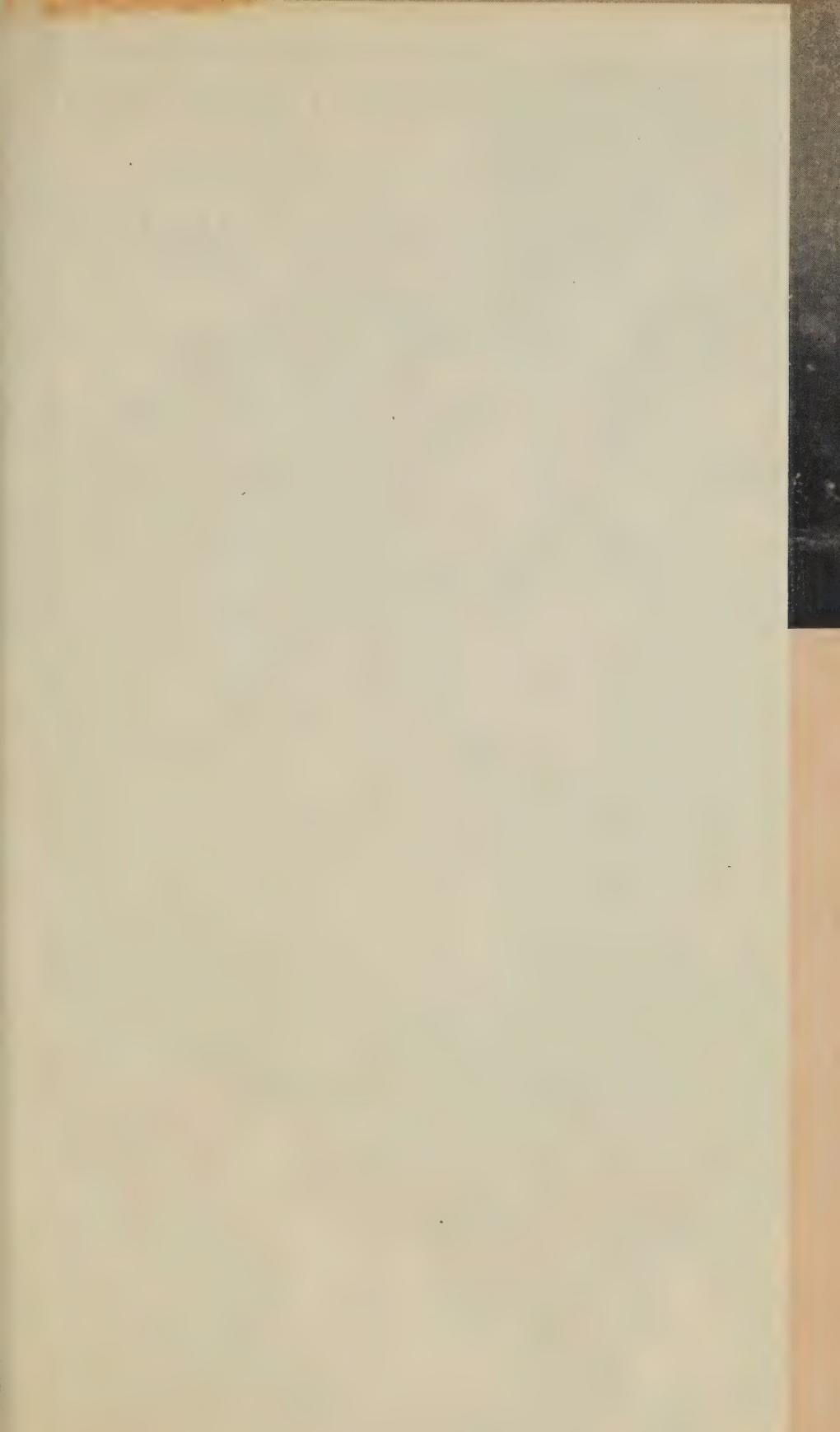
### *Production of Sawn Lumber and All Sawmill Products, 1946*

Province or Territory	Sawn Lumber Production		Total Sawmill Products
	'000 ft. b.m.	\$	
Prince Edward Island.....	12,232	492,477	562,631
Nova Scotia.....	330,578	14,519,554	16,159,079
New Brunswick.....	316,141	14,948,556	17,230,075
Quebec.....	1,161,607	55,249,378	66,160,934
Ontario.....	673,441	34,181,404	41,526,408
Manitoba.....	59,234	2,290,813	2,483,193
Saskatchewan.....	104,970	3,703,021	3,947,249
Alberta.....	255,675	8,398,471	9,383,450
British Columbia.....	2,169,096	96,382,732	130,433,625
Yukon.....	306	23,293	23,413
<b>Totals.....</b>	<b>5,083,280</b>	<b>230,189,699</b>	<b>287,910,057</b>

**Pulp and Paper.**—The production of pulp and its conversion into newsprint and other paper products is one of Canada's major manufacturing enterprises. Canada's extensive pulpwood resources and widely distributed water powers have been largely responsible for the remarkable development of the industry. From the early 1920's until 1941, the pulp and paper industry headed the lists in net value of production and in wage and salary distribution. From 1942 to 1944 some of the war industries surpassed it in these respects, but in 1945 it recaptured first place for net value of products, regained in 1946 the top position for wage and salary distribution, and in that year also took the lead for gross value of production for the first time since 1935. In these comparisons only the manufacturing stages of the pulp and paper industry are considered, no allowances being made for employment furnished, payroll, or production of operations in the woods.

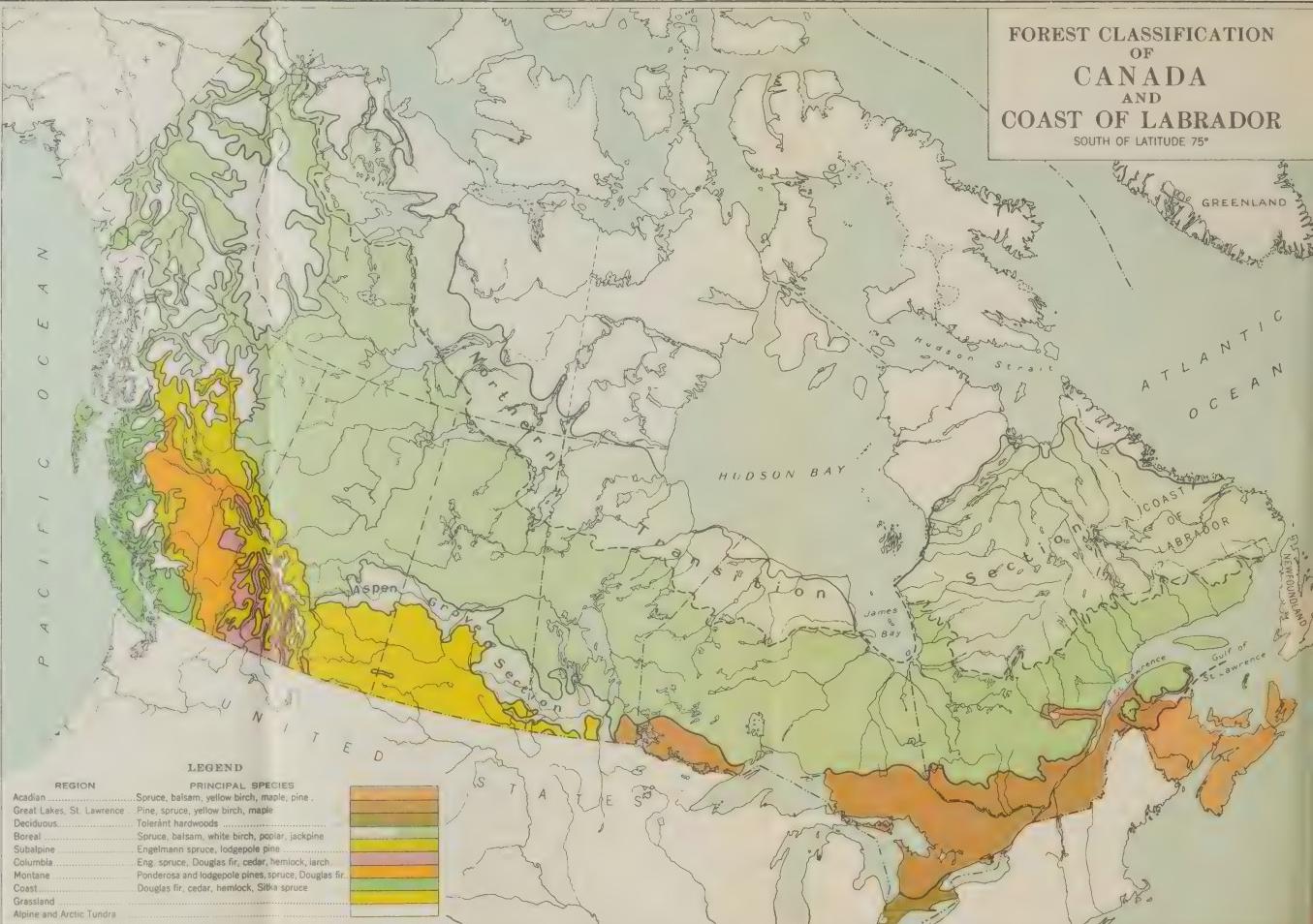
There were, in 1947, three classes of mills in this industry: 29 making pulp only, 59 combined pulp and paper mills, and 27 making paper only. The 88 mills making pulp produced 7,253,671 tons valued at \$403,853,235, representing increases of 9·7 p.c. in quantity and of 40·4 p.c. in value over 1946. About 72 p.c. by quantity was made in combined mills and used by them in papermaking and about 28 p.c. was made for sale in Canada and for export.

The volume of pulp and paper produced in 1947 was the highest ever recorded, and new peaks were also reached for gross and net values of production, employment, salaries and wages paid, cost of materials used, cost of



FOREST CLASSIFICATION  
OF  
CANADA  
AND  
COAST OF LABRADOR  
SOUTH OF LATITUDE 75°

P A C I F I C O C E A N





Organized forest-fire protection covers about 70 p.c. of the forest area of Canada. Nevertheless, more than 5,000 costly forest fires are reported annually resulting, in addition to the loss of merchantable timber and property, in the destruction of young growth and incalculable damage to soil quality, watershed regulation, and recreational tourist and wildlife values. Much of this loss is due to human carelessness. Losses were particularly heavy in 1948 and the jobs and welfare of thousands of Canadians will suffer.

purchased fuel and electricity, and power equipment used. The gross value of production in 1947 was 33·9 p.c. over the previous record of 1946 and an increase of 189·8 p.c. over 1929. Figures from 1936 are:-

	<i>Gross Production</i>	<i>Net Production</i>		<i>Gross Production</i>	<i>Net Production</i>
	\$	\$		\$	\$
1936 .....	183,632,995	86,406,163	1942 .....	336,697,277	164,500,420
1937 .....	226,244,711	106,002,017	1943 .....	344,411,614	164,244,088
1938 .....	183,897,503	89,034,186	1944 .....	369,846,086	174,492,103
1939 .....	208,152,295	103,123,660	1945 .....	398,804,515	180,401,885
1940 .....	298,034,843	158,230,575	1946 .....	527,814,916	258,164,578
1941 .....	334,726,175	174,852,041	1947 .....	706,971,628	356,084,900

Two pulping methods are used. The mechanical process, in which the wood is reduced to fibre by pressing against large revolving grindstones, produces groundwood pulp. In the chemical process small chips of wood are cooked at high temperature and under pressure in a chemical liquor. Three such chemical pulping processes are employed to produce sulphite, sulphate or soda pulp, which obtain their names from the acid or alkali used in the cooking. The type or mixture of pulp employed determines the character of the paper produced. Newsprint is composed of about 85 p.c. groundwood and 15 p.c. unbleached sulphite.

Production of pulp during the past ten years is given in the following tables.

### Pulp Production, Mechanical and Chemical, 1938-47

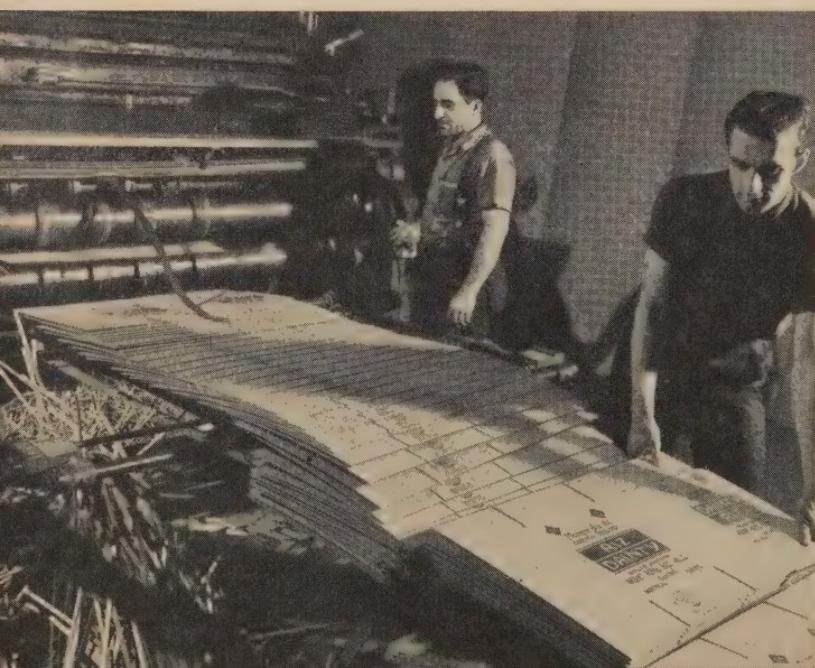
Year	Mechanical Pulp		Chemical Fibre		Total Production <sup>1</sup>	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1938.....	2,520,738	39,707,479	1,147,051	48,189,669	3,667,789	87,897,148
1939.....	2,796,093	43,530,367	1,370,208	53,601,450	4,166,301	97,131,817
1940.....	3,368,209	56,017,547	1,922,553	92,987,720	5,290,762	149,005,267
1941.....	3,550,285	61,749,788	2,170,562	113,689,763	5,720,847	175,439,551
1942.....	3,308,118	65,208,919	2,298,343	126,936,143	5,606,461	192,145,062
1943.....	3,033,751	63,721,703	2,239,079	130,797,449	5,272,830	194,519,152
1944.....	3,113,142	72,097,231	2,157,995	138,944,181	5,271,137	211,041,412
1945.....	3,380,873	86,723,425	2,219,941	145,149,697	5,600,814	231,873,122
1946.....	4,122,046	113,599,526	2,493,364	174,024,701	6,615,410	287,624,227
1947.....	4,408,698	150,245,618	2,838,205	253,399,159	7,253,671	403,853,235

<sup>1</sup> Includes unspecified pulp.

### Pulp Production, by Chief Producing Provinces, 1938-47

Year	Quebec		Ontario		British Columbia	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1938.....	1,858,971	44,220,224	1,057,984	25,821,023	242,020	4,456,691
1939.....	2,119,183	49,026,966	1,158,576	27,631,051	321,132	6,197,175
1940.....	2,794,384	76,996,100	1,369,389	38,235,733	445,564	12,109,948
1941.....	2,971,386	89,103,399	1,507,324	46,908,967	508,375	14,875,937
1942.....	2,896,440	97,632,408	1,518,967	51,936,704	481,294	16,243,737
1943.....	2,617,403	94,054,176	1,490,966	54,818,046	450,009	17,543,397
1944.....	2,767,081	105,042,991	1,316,365	54,934,993	489,690	19,739,476
1945.....	2,887,176	114,197,036	1,468,682	62,596,260	520,571	21,998,381
1946.....	3,460,853	140,930,891	1,837,975	84,049,038	520,779	24,216,820
1947.....	3,751,579	194,805,327	2,100,237	122,382,058	593,165	37,720,328

Newsprint made up 77.5 p.c. of the total production of Canada's 86 paper mills in 1947; paper boards 12.9 p.c.; book and writing paper 3.6 p.c.; wrapping paper 3.3 p.c.; and tissue and miscellaneous papers the remainder.



Corrugated shipping containers, boxes and packages of all kinds have come into wide general use and are produced in quantity by the paper manufacturers of Canada.



A large pulp and paper plant on the British Columbia Coast.

Many Canadian pulp and paper mills not only manufacture basic paper and paperboard stock but also convert this stock into more highly manufactured products such as napkins, towels, packaged toilet papers, coated and treated papers, boxes, envelopes, stationery, and other cut paper and boards. Figures covering this conversion are not included here.

#### Newsprint and Total Paper Production, 1938-47

Year	Newsprint Paper		Total Paper	
	Quantity tons	Value \$	Quantity tons	Value \$
1938.....	2,668,913	107,051,202	3,249,358	151,650,065
1939.....	2,926,597	120,858,583	3,600,502	170,776,062
1940.....	3,503,801	158,447,311	4,319,414	225,836,809
1941.....	3,519,733	158,925,310	4,524,776	241,450,292
1942.....	3,257,180	147,074,109	4,231,767	230,269,512
1943.....	3,046,442	152,962,868	3,966,344	234,036,152
1944.....	3,039,783	165,655,165	4,044,376	255,545,841
1945.....	3,324,033	189,023,736	4,359,576	282,837,614
1946.....	4,162,158	280,809,610	5,347,118	396,956,390
1947.....	4,474,264	355,540,669	5,775,082	507,101,277

Newsprint production during the first 11 months of 1948 showed an increase of approximately 200,000 tons over the same period of 1947.

Exports of newsprint in 1947 amounted to 4,220,779 tons valued at \$342,293,158 and ranked first among the exports of the Dominion.



# Fisheries

CANADA'S fishing grounds, both sea and inland, are unsurpassed in extent by those of any other country, and their huge yields place the Atlantic and Pacific Provinces among the principal fish producers and exporters of the world. From the fishing grounds off the sea coasts and from the inland waters, Canadian fishermen take catches which ordinarily total annually well over 1,000,000,000 lb., including some 70 different kinds of food fish and shellfish, as well as some non-food species of commercial value.

Total landings of commercial sea fish in 1947 were 1,145,063,300 lb., valued at \$47,826,118, which was about 7 p.c. in quantity below the 1946 figure of 1,227,358,900 lb., valued at \$56,247,875. The Pacific Coast fisheries of chief importance—salmon, herring and halibut—all showed increases in both quantity landed and value, but cod landings on the Atlantic Coast fell off by more than 100,000,000 lb. from the 1946 total of 312,500,000 lb., and the landed value from \$11,030,000 in 1946 to \$6,414,849 in 1947. About one-quarter of this loss was incurred during a disagreement between crews and operators of the deep-sea fishing fleet in the early part of the year. Some of the loss was also due to reduced demand for frozen fillets in the United States. Lower prices for raw codfish continued in effect during the height of the fishing season, resulting in temporary reduction of fishing efforts in some districts.

For some months average prices were lower for the landings of the varieties that produce the greatest returns to Atlantic fishermen—cod and similar species, lobster, herring and mackerel. Prices recovered, however, in the latter part of the year and the demand was good. The placing of world relief orders by the Government of Canada was helpful and aided in stabilizing the industry. Stocks of cured and canned fish were mostly cleared from the dealers' hands by the end of the year. Investment in gear, equipment, etc., used in the primary operations of taking and landing the catch, amounted to \$5,820,000 in 1947.

In the ten-month period, January to October, 1948, combined sea landings, east and west, were greater by nearly 100,000,000 lb. than they had been in the corresponding 1947 period. Landed value returns to the sea fishermen, amounting to about \$53,260,000, showed an increase of approximately \$13,000,000.

Off the East Coast of Canada are to be found fish populations of such size that fishing vessels from other nations travel thousands of miles to share in the aggregate catches of cod, haddock, hake, pollock and cusk. These and other groundfish make up about 42 p.c. of the Atlantic Coast catch. Lobster, however, is the largest revenue-producing item of the East Coast industry, producing as it does practically all the world's supply of canned lobster. The 31,884,000 lb. catch in 1947 had a landed value of \$8,274,532, which was lower than the value of the 1946 catch of 38,955,000 lb. valued at \$11,400,000 because of bad weather.

Sardine herring, small herring caught in great quantities each year (101,586,000 lb. in 1947), form the basis of an important branch of the canning industry on the Atlantic Coast. The total of small and larger herring caught in 1947 off the Pacific and Atlantic Coasts was 495,706,200 lb. The larger catches were made off the Pacific Coast where, in recent years, much the greater part of Canada's pack of canned herring has been put up. A good deal has also been used in the production of meal and oil. Some of the Atlantic Coast herring catch is sold fresh, but much more goes to market in pickled or smoked form. Some of the remainder is used for bait and as fertilizer.

British Columbia salmon, by far the most important West Coast fish, has the highest marketed value of any Canadian fish. In 1947 the catch of 162,810,000 lb. was valued at \$13,145,417. The five species of Pacific salmon which make up this fishery are sockeye, spring, coho, pink and chum. Although the greater part of the catch is canned, a substantial part is also marketed in fresh or frozen form, some mild-cured, some smoked, some pickled and some dry-salted.

The 1947 catch of pilchards on the Pacific Coast was relatively very small—only 971,000 lb. compared with the 1935-39 average of 45,160,000 lb. For some unknown reason the runs of this fish, taken only in British Columbia areas, have almost disappeared. More or less the same scarcity exists in United States waters.

The Canadian halibut fleet caught 26,036,800 lb. of halibut in 1947, an increase of about 4,000,000 lb. over 1946. Much the larger part was taken by British Columbia fishermen. The North Pacific deep-sea fisheries give Canada and the United States a share of halibut constituting about 70 p.c. of the world catch. The International Fisheries Commission, set up by Canada and the United States for the preservation of the halibut industry in the northern Pacific Ocean and Bering Sea, continued during 1947 the regulation of the halibut fishery and carried forward biological and statistical investigations of the stocks of halibut upon which the management of the fishery is based. The International Pacific Salmon Fisheries



Salmon—the most important fish taken on the Pacific Coast. The value of production of the salmon fishery, including processing, in 1947 amounted to \$35,692,625.

*Fish from the Atlantic are hauled from the holds of fishing craft in baskets and cleaned and packed on deck.*



Commission is a similar body set up by both countries for the preservation and restoration of the sockeye salmon resources of the Fraser River system.

Whitefish, trout, pickerel, tullibee and lake herring are the main species of fish taken by inland fishing industries, which extend throughout areas of Manitoba, Saskatchewan and Alberta, as well as in the Great Lakes region and some of the northern lakes of Ontario. Another important inland fishing area, in addition to Quebec, is Great Slave Lake. It is the only commercially fished area in the Northwest Territories and, although operations were only begun commercially in 1945, it is now the annual source of several million pounds of fish marketed in Canada and the United States.

Total value of Canada's exports of fish and fish products in 1947 was \$84,000,000. Of this amount the United States took by far the largest part, 54.1 p.c.: all other markets in the dollar area took 15.6 p.c.; European Recovery Plan, 7.2 p.c.; United Kingdom, sterling area, 8 p.c.; and other sterling areas, 15.1 p.c. Of Canada's exported fish, 37.5 p.c. was canned, 45.2 p.c. was exported fresh and 14.7 p.c. was cured. The remaining 2.6 p.c. was made up of other fishery products. Of the canned fish exported, 11.5 p.c. was salmon and fresh-fish exports were made up of: salmon, 6.5 p.c.; lobster, 9.1 p.c.; cod fillets, 3.1 p.c.; and other fresh fish and fillets, 26.5 p.c.

During the post-war period, Canada's own fish consumption has increased slightly. For the year 1947 it stood at 10.8 lb., edible weight, per person, and indications are that for 1948 it will have reached between 11 and 12 lb. per capita.



*A fish cannery, Victoria Island, B.C.*

Two bodies immediately associated with the Federal Department of Fisheries make important contributions in their respective fields to Canada's fishing industry. They are the Fisheries Research Board of Canada and the Fisheries Prices Support Board. The latter, an agency created by Act of Parliament, was established to assist Canada's fisheries to achieve an orderly reconversion from wartime abnormality to the operating conditions of peace. The work of the Fisheries Research Board in the biological, technological and oceanographic fields has been responsible in no small measure for promoting the interests of Canadian fisheries.

### ★ Statistics of Production

Expansion in the commercial fishing industry of Canada began in the nineteenth century, the marketed value of the catch increasing from \$125,000 in 1844 to \$22,000,000 in 1900. By 1918 the landed value alone had reached \$32,000,000 and in 1946, a peak year, it stood at \$67,161,502. The quantity landed in 1946 was 13,186,335 cwt. The total value of the fisheries, i.e., the value of the fish as marketed, fresh, canned, cured, etc., and including the value of marine mammals, oil, meal and seaweed, amounted in 1946 to \$121,124,732, an increase of \$7,253,632 or 6·4 p.c. over the 1945 figure. The sea fisheries contributed \$106,515,597 or 88 p.c. and the inland fisheries

\$14,609,135 or 12 p.c. of the total. The figures given in the following table are the values of all fisheries products marketed, both primary and secondary.

### *Fisheries Production, by Provinces, 1914, 1945 and 1946*

Province or Territory	Values of Production			Percentages of Total Values		
	1914	1945	1946	1914	1945	1946
	\$	\$	\$	p.c.	p.c.	p.c.
Prince Edward Island	1,261,666	3,076,811	4,470,877	4.1	2.7	3.7
Nova Scotia.....	7,730,191	30,706,900	34,270,762	24.7	27.0	28.3
New Brunswick.....	4,940,083	13,270,376	16,419,983	15.8	11.7	13.6
Quebec.....	1,924,430	7,907,692	7,927,022	6.2	6.9	6.5
Ontario.....	2,755,291	7,261,661	6,296,658	8.8	6.4	5.2
Manitoba.....	849,422	4,263,670	4,871,037	2.7	3.7	4.0
Saskatchewan.....	132,017	1,286,361	1,148,886	0.4	1.1	0.9
Alberta.....	86,720	1,450,502	1,339,083	0.3	1.3	1.1
British Columbia.....	11,515,086	44,531,858	43,817,147	36.8	39.1	36.2
Yukon.....	69,725	3,138	5,014	0.2	—	—
Northwest Territories.....	1	112,131	558,264	—	0.1	0.5
<b>Totals.....</b>	<b>31,264,631</b>	<b>113,871,100</b>	<b>121,124,733</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

<sup>1</sup> Not collected before 1945.

The salmon fishery of British Columbia gives to that Province first place in respect to value of production. The herring fisheries (on both the Atlantic and Pacific Coasts) are of rising importance and second only to salmon in value of output in British Columbia; canned herring is the chief product, but herring meal and oil are also produced. On the Atlantic Coast, the cod, lobster and sardine fisheries are of importance, while among the inland fishes, whitefish occupies first place.

### *Averages of Production and Values Marketed, by Principal Kinds of Fish, 1935-39 and 1942-46*

Kind of Fish	Averages 1935-39		Averages 1942-46	
	Quantity Caught	Value Marketed	Quantity Caught	Value Marketed
			cwt.	\$
Salmon.....	1,769,319	13,435,975	1,446,289	21,235,829
Cod.....	1,620,056	3,159,882	2,530,765	15,843,893
Herring.....	2,773,682	2,643,737	3,550,221	13,028,684
Lobsters.....	308,448	4,194,228	333,946	10,025,197
Whitefish.....	156,919	1,643,670	178,517	3,657,848
Halibut.....	153,691	1,646,448	152,845	3,374,068
Sardines.....	219,184	1,630,962	394,355	3,139,507
Pickeral.....	129,505	970,781	139,694	2,341,376
Haddock.....	387,801	1,287,394	299,750	2,259,937
Mackerel.....	286,702	571,564	342,810	2,151,240
Grayfish.....	142,858	88,652	68,084 <sup>1</sup>	2,122,169

<sup>1</sup> Three-year average for quantity—livers only landed in 1945 and 1946.

The fish-processing industry is connected almost entirely with the sea fisheries, the plants being scattered along the coasts in locations of easy accessibility to the fishermen in delivering their catches. In 1946 about 62 p.c. of the value of production was in the form of fish canned, cured or otherwise prepared, and 38 p.c. fish marketed for consumption in the fresh state.

Capital invested in vessels, boats, nets, traps, piers and wharves, etc., used in the primary operations of catching and landing fish, had a total value in 1946 of \$47,413,221, of which 83 p.c. was accredited to the sea fisheries.



# Furs

## T

HE fur resources of Canada are among its most valuable assets, and though, with the advance of settlement, trapping has moved farther and farther northward and the practice of fur farming has developed considerably, wild life still produces the greater portion of Canadian furs. Over an area of about 1,550,000 square miles, which is about 45 p.c. of the total land area of Canada, wild life is relatively more productive than agriculture, and of the products of wild life, furs are the principal item and the principal support of the population of that area.

The conservation of fur-bearers, which has marked the policy of Federal and Provincial authorities to an increasing extent, has been made necessary by a rising demand for furs coupled with decreasing supplies. The resulting substantial rise in prices also brought about a tendency to 'over-trap', and it has been found necessary to control the 'take' by prohibition, close seasons and the enforcement of trapping regulations. However, in a country of such extent, where trappers, both white and Indian, are scattered over a vast wilderness, prohibition of capture of certain animals with the aim of conserving future catches is not always effective. Such furs become higher priced because of this scarcity and the temptation to violate protective measures is great. Each province has its trapping regulations and licenses individual trappers. One noteworthy reconstructive measure that appears to have had a very beneficial influence on the rehabilitation of certain fur-bearers, especially beaver and muskrat, is the organized development of marshlands where these animals are actively assisted to increase their numbers in their natural habitat.

The total number of pelts taken, wild and from fur farms, in each of the past ten years, is shown in the following table.

### Numbers and Values of Pelts Taken, Years Ended June 30, 1938-47

Year Ended June 30	Pelts		P.C. of Value Sold from Fur Farms	Year Ended June 30	Pelts		P.C. of Value Sold from Fur Farms
	Number	Value			Number	Value	
		\$				\$	
1938....	4,745,927	13,196,354	43	1943....	7,418,971	28,505,033	24
1939....	6,492,222	14,286,937	40	1944....	6,324,240	33,147,392	28
1940....	9,620,695	16,668,348	31	1945....	6,994,686	31,001,456	31
1941....	7,257,337	21,123,161	27	1946....	7,593,416	43,870,541	30
1942....	19,561,024	24,859,869	19	1947....	7,486,914	26,349,997	37

Ontario leads the provinces in value of fur production, having accounted for 26·6 p.c. of the total in the year ended June 30, 1947. Quebec and Alberta each accounted for over 14 p.c., while Manitoba followed with nearly 12 p.c. The numbers of pelts taken in both Alberta and Manitoba were higher than in Ontario, but in those provinces muskrat and squirrel, which are lower-priced furs, made up the major portion of the total while in Ontario

the more valuable mink, beaver and fox pelts brought the total value to a much higher level.

**Numbers and Values of Pelts Taken, by Provinces, Years Ended  
June 30, 1946-47**

Province or Territory	1946			1947		
	Pelts	Value	P.C. of Total	Pelts	Value	P.C. of Total
	No.	\$		No.	\$	
Prince Edward Island..	34,201	1,195,930	2·7	35,168	658,962	2·5
Nova Scotia.....	184,119	1,123,390	2·6	160,935	716,009	2·7
New Brunswick.....	95,976	1,053,699	2·4	66,113	834,641	3·2
Quebec.....	645,123	7,444,582	17·0	511,485	3,913,915	14·8
Ontario.....	1,240,661	10,822,246	24·7	1,142,490	7,005,904	26·6
Manitoba.....	1,489,079	6,507,406	14·8	1,348,730	3,099,159	11·8
Saskatchewan.....	1,131,845	3,671,751	8·3	1,086,464	2,303,554	8·7
Alberta.....	1,501,722	5,209,064	11·9	1,837,653	3,738,788	14·2
British Columbia.....	598,373	3,414,795	7·8	751,060	2,047,135	7·8
Yukon.....	107,252	677,495	1·5	58,777	373,176	1·4
Northwest Territories.....	565,065	2,750,183	6·3	488,039	1,658,754	6·3
<b>Canada.....</b>	<b>7,593,416</b>	<b>43,870,541</b>	<b>100·0</b>	<b>7,486,914</b>	<b>26,349,997</b>	<b>100·0</b>

Mink skins contributed the highest amount to the total value in 1947 followed in order by muskrat, fox pelts of all types, and beaver pelts. The drop in the total value of production was the result of marked decreases in the average values of nearly all types of pelts as compared with the previous year, though the number of pelts taken was only slightly smaller. Muskrat dropped from \$3.26 to \$1.94, squirrel from 79 cents to 44 cents, red fox from \$6.74 to \$3.81, beaver from \$50.80 to \$29.46, white fox from \$22.83 to \$13.49, new-type fox from \$47.83 to \$28.62, standard silver fox from \$27.93 to \$17.21, marten from \$56.17 to \$32.45, standard mink from \$29.03 to \$19.61, and ermine from \$2.97 to \$1.61.

### Fur Farming

Fur farming is carried on in all provinces of Canada. Of the 6,797 farms operating in the calendar year 1946, 1,768 were in Quebec, 1,348 in Ontario and 1,027 in Alberta. Until recently the fox was the most valuable animal raised on farms but it has been replaced by mink in both number and value. In 1946 there were 99,269 foxes of all types valued at \$4,663,185 on 3,729 farms and 274,670 standard and mutation mink valued at \$10,936,409 on 3,579 farms. Mink farms in 1946 showed an increase of 859 over the previous year but fox farms decreased by 516. Of course, both mink and fox, as well as other fur animals, are in many cases raised on the same farm. Chinchilla, a high-priced animal, is increasing in Canada, there being 1,285 animals valued at \$668,020 on farms in 1946. All other types of animals raised in captivity, including coyote, fisher, fitch, lynx, marten, nutria, raccoon and skunk, numbered only 1,009.

The popularity of different types of fur has, of course, a definite effect on production. Black fox was popular twenty-five years ago, and a few years later the full silver, cross and platinum fox sold in the upper price limits. The recent development of new colour phases of both fox and mink has proved an incentive to the fur-farming industry.

In 1946, 340,569 pelts valued at \$6,784,681 were sold from fur farms. This was a decrease in both number and value from 1945, the average value for each type, with the exception of mutation mink, having decreased from the previous year. Standard mink accounted for 49·3 p.c. of the total value and silver fox for 25·4 p.c. The total revenue from the sale of pelts and live animals amounted to \$9,284,319. Anticipated pelt production for 1947 and 1948 are: 105,000 and 66,900 silver fox pelts, respectively; new type fox pelts, 76,900 and 48,800; standard mink, 430,400 and 388,100; and mutation mink, 60,000 and 129,600.

### *Grading*

In 1939 the Dominion Department of Agriculture introduced the grading of furs. One of the Department's main objectives in grading is to secure

**An Alberta fur farm which houses 15,000 foxes. The wire cages are for breeding: the expensive fur coats of pelt animals are protected from bleaching in the covered pens.**



uniformity so that furs may be purchased by grade without the necessity of buyers from other countries personally examining the pelts. Grading offers many advantages to the producer as well as to the trade in general. It educates the rancher as to the proper value of his pelts, and creates an incentive to improve the quality of the product; it furnishes guidance in the planning of future matings, aids in raising the standard of quality of the entire crop of pelts and helps in advancing the level of prices for the high-quality pelts.

## Trade

At the present time the United Kingdom and the United States are Canada's best customers for fur pelts, although Canadian furs have a world-wide distribution. Montreal continues to hold pride of place as the leading fur market in Canada. In addition, auction sales are held at Vancouver, Edmonton, Regina and Winnipeg. At these auction sales the following types of fur are sold in considerable quantities to buyers from the domestic and foreign markets: beaver, ermine, fisher, black, silver and white fox, lynx, mink, marten, muskrat, seal, otter, squirrel, skunk and raccoon. In 1949, mutation mink will be featured at the sales for the first time.

Hitherto the Canadian fur trade has been principally interested in exporting fur pelts; to-day the industry is also producing fur garments for export and fur-fashion displays held at Montreal have attracted wide interest. Canada imports furs, in addition to her volume domestic production, the principal types being raw sheep skins, raccoon, Persian lamb, opossum and rabbit.

### *Exports and Imports of Raw and Dressed Furs, 1938-47*

Year	Exports <sup>1</sup>			Imports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$	\$	\$	\$	\$	\$
1938.....	8,794,834	4,478,818	14,096,503	1,135,686	3,148,940	5,650,624
1939.....	7,054,745	6,772,641	14,568,986	1,018,417	4,455,938	7,133,052
1940.....	3,306,271	12,187,096	16,176,075	920,528	6,813,080	8,885,540
1941.....	430,428	14,883,751	16,159,033	1,970,910	4,112,345	9,120,337
1942.....	156,586	16,869,153	17,976,615	945,360	3,306,214	6,448,861
1943.....	66,844	25,086,912	26,448,522	496,578	4,923,632	8,613,879
1944.....	28,321	25,748,651	27,029,329	250,280	6,832,775	11,434,257
1945.....	1,363,727	26,755,604	29,572,474	262,775	9,078,294	21,205,173
1946.....	10,842,086	19,679,471	32,291,425	765,577	14,764,115	27,291,573
1947.....	7,378,628	20,342,001	29,047,741	697,737	18,586,408	22,451,123

<sup>1</sup> Canadian produce only.

There were 24 fur-dressing plants in operation in Canada in 1946. The industry is established on a custom basis, that is, the customer sends the furs to be dressed or dyed and is charged an amount per skin treated. The number of skins treated in 1946 totalled 12,875,683 compared with 11,079,292 in 1945, and the amount received by the industry for such treatment was \$5,010,539, an increase of 34 p.c. over the previous year.

The value of production of the 593 establishments engaged in the manufacture of fur goods in 1946 amounted to \$57,737,516. This was a record figure, exceeding the 1945 total by 13 p.c. Women's fur coats comprised the bulk of the product, having a value of \$41,530,129, or 72 p.c. of the total.



## ★ Canada's Interest in the Alaskan Fur Seal

The Pribilof Islands far to the west in the Bering Sea are named after a Russian captain of a sealing vessel who discovered them in 1786. Each year, Pribilof had watched the great shoals of seal on their northern flight and knew instinctively that they were migrating towards a northern resting place. He determined to find it and his search led to the discovery of this mating ground of the Alaskan fur seal.

Previously many seals, young and old alike, were slaughtered at sea as they made their way each year up the coasts of California, Oregon, Washington and British Columbia. After the mating grounds were found this wastage continued and, in addition, the seals that survived the journey north, more helpless even on land than in the water, were slaughtered indiscriminately and their extinction threatened.

In 1867 Russia sold Alaska to the United States and relinquished her claim to the Pribilofs. In 1911, to preserve the seal, the countries interested—United States, Russia, Canada and Japan—entered into an Agreement to share in a controlled catch to be organized each year on the Pribilofs. Sealing on the high seas ceased except that native Indians are still permitted to hunt these mammals in canoes and with arrows or spears since their catch is never very large. Japan abrogated the Treaty just prior to the Pearl Harbour



*Natives (Aleuts) driving bachelor seals to killing ground.*

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episode, December, 1941, and Russia, possessing other sealing grounds, has made no claim to the catch from the Pribilofs although she signed the Agreement. At present the Pribilof catch is divided between United States and Canada in the proportion of 80 p.c. and 20 p.c., respectively. The value of Canada's share averages over \$1,000,000 per year.

About the year 1914, United States scientists made an exhaustive study of the seals: their researches on the management of the herds have been continued down to recent times. In 1946 the United States Government invited Canadian scientists to accompany their investigators as observers, and each Government sent scientists to study and report on life and conditions on the Islands. Dr. Clifford Carl, of the British Columbia Provincial Museum, and Dr. Georges Prefontaine, of the University of Montreal, represented Canada.

The life history of the seal, as unfolded by these scientific inquiries, is broadly as follows: The seals spend most of their lives along the west coast of North America roaming from southern California to Alaska. At the call of spring the herds start north in order that the females may give birth to their young on the rocky, misty islands that are their natural breeding habitat. The bulls arrive ahead of the cows and select their breeding grounds, to which they substantiate claim by fighting among themselves, the mature and bigger bulls naturally getting the choice locations. Bulls reach sexual maturity in their third or fourth year but are unable to hold their ground on the rookery until their seventh year; in their prime they may attain a weight of 500 pounds or more. When the pregnant females arrive, each bull segregates a number of them for his own location. The unit will average from thirty to forty females to a bull but may reach as many as one hundred. After the new generation of pups is born (each cow has but one pup) mating takes place

and from then on the female must fend for herself, the mother travelling perhaps hundreds of miles fishing for and feeding her pup.

In addition to the breeding seals, on certain portions of the beach there are gathered non-breeding animals, mostly males in their second to sixth year. This "bachelor" population is the result of the harem system of breeding, for although about equal numbers of males and females are born each year, there is built up a large surplus of males. From this surplus stock, animals are selected for killing to provide skins for the trade. Those of the three-year-old age class are most suitable for commercial use from the standpoint of size and numbers available, but since they are selected on a basis of size, a certain small number of two-year-olds, four-year-olds, and females are inadvertently taken.

The seals so selected for their skins are slaughtered quite painlessly with a hard blow delivered on their thin skulls. The skins, after cleaning and curing, are packed in barrels which are numbered and stamped, every fifth barrel being allotted to Canada.

A portion of the Canadian allotment goes to London, England, for processing, the remainder being handled at St. Louis, Missouri, where the Fouke Fur Company holds the present contract for the United States Government. Processing consists of an elaborate series of more than a hundred intricate operations before the skins are ready for market. The price skins bring depends on size, quality and the current market.

The annual catch taken under present controlled conditions naturally varies; it amounted to 70,142 skins in the 1947-48 season, of which Canada's share was 14,028. Gross revenue from the sale of these skins amounted to \$824,000 while expenditures were \$280,000, the profits going to the Federal Treasury. The value of the seal fishery is not high in relation to total Canadian fur production (about \$26,349,997 for 1947), but is a significant addition to this natural resource and one which has a particularly interesting history.

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*Sealskins being checked in from the killing ground.*





# Mines and Minerals

**C**ANADA'S mineral production in 1947 reached an all-time high value of \$644,696,007, an increase of 13.7 p.c. over the previous high value of \$566,768,672 established in 1942 and 28 p.c. greater than the \$502,816,251 in 1946. New records were established in the output values of fuels, structural materials and other non-metallics, but the metals group did not reach the level of the 1941 production.

Although the tonnages of the principal base metals were, on the whole, considerably below those obtained in the war years, the higher prices obtaining resulted in record output values for many of them. The aggregate value of the metals group was \$104,694,189 greater than in 1946, but was \$227,703 less than the record year of 1941. Values for copper, lead, zinc and nickel were at all-time peaks, but these gains were more than offset by the level of gold production which was only about 58 p.c. of the 1942 figure.

Output of structural materials was greater than in any previous year, the 1947 value of \$84,576,785 being nearly 28 p.c. above the 1946 total. Shipments of cement, lime, brick and other clay products, stone and sand and gravel were in each case greater than ever before.

Value of fuels as a group was greater than in 1946. The tonnage of coal was down, but the total value was up substantially. Natural gas and crude petroleum were slightly higher in quantity and considerably greater in value.

Other non-metallics showed substantial advances, the chief gains being in asbestos and gypsum.

**Prices.**—In placing a value on Canada's mineral production, it has been customary to value the metals at average quotations (converted to Canadian funds) on the New York market or on the London market, depending usually on the relative exports to these countries. In the war years, however, with the inauguration of price controls, it was necessary to depart from this practice, and during this period the average prices were supplied by the Canadian Metals Controller. In 1946, a weighted average was computed by applying the Canadian ceiling prices to the amounts sold for domestic use and the New York averages, in terms of Canadian dollars, to the quantities sold for export. A similar procedure was followed in 1947 during the period that price controls were in existence. The domestic ceiling prices on copper, lead and zinc were raised early in 1947 and ceilings were removed entirely about mid-year.

The steady rise in prices of the major base metals was the outstanding feature of the mining picture in the latter part of 1946 and throughout 1947. According to averages for Canada, on the basis indicated above, copper jumped from 12.80 cents per lb. in 1946 to 20.39 cents in 1947, zinc from 7.81 cents to 11.23 cents, and lead from 6.75 cents to 13.67 cents. Antimony rose from 15 cents per lb. to 33.4 cents, bismuth from \$1.40 per lb. to \$1.97, and cadmium from \$1.22 to \$1.72 per lb. In contrast, the price of gold to



A Canadian mine-shaft headframe adopts the 'new look'.

Canadian producers remained fixed throughout the year at \$35 per fine oz. The average for silver dropped from 83·65 cents in 1946 to 72 cents in 1947.

**Copper and Nickel.**—Copper production at 225,862 tons was 23 p.c. greater than in 1946, but it was not up to the output in any of the years from 1937 to 1945, inclusive, and was far below the record of 327,797 tons in 1940. Higher market prices, however, placed the 1947 dollar value much above that of any earlier year at \$91,541,888. In 1940 the value of output was only \$65,773,061.

Recoveries from the copper-gold mines of northwestern Quebec increased to 42,561 tons from 34,899 tons in 1946; in Ontario the output, all from the nickel-copper mines of the Sudbury district, advanced to 113,934 tons from 89,712 tons; in Manitoba and Saskatchewan the combined tonnage was down slightly to 48,467 from 50,607 tons; and in British Columbia the output was more than twice as much at 20,900 tons compared with 8,750 tons in the previous year. All of the concentrates from mines in the latter province were

exported to United States smelters, but the ores from central and eastern Canada were processed in domestic smelters.

Output of the refined metal in 1947 was 202,427 tons compared with 167,000 tons in 1946 and with 278,000 tons in 1941, the record year. Domestic consumption of refined copper continued at a high level with Canadian industries using 109,210 tons of ingots, cakes, wire bars, etc., in 1947 compared with 57,000 tons in 1939. The record usage was in 1942 with 183,000 tons, but a large part of this was for cartridge cases and other military supplies. Exports of refined shape in 1947 amounted to 87,478 tons, of which 55,742 tons were shipped to the United Kingdom and 12,152 tons to France.

The higher production in 1947 probably returned Canada to the position of leading copper producer in the Commonwealth, slightly ahead of Rhodesia.

About 90 p.c. of the world's supply of nickel comes from the nickel-copper mines in the Sudbury area. In 1947 there was a considerable recovery in output following a rather drastic decline in 1946, the quantity being 118,626 tons for refined nickel and recoverable nickel in matte and oxide for export. The record output was in 1943 at 144,009 tons. Nickel consumption in Canada increased from 600 tons in 1937 to 4,500 tons in 1942 and is now close to 2,000 tons yearly. Exports of refined nickel in 1947 amounted to 70,756 tons.

**Lead and Zinc.**—About 90 p.c. of Canada's lead production comes from the great Sullivan mine at Kimberley, B.C., and is recovered at Trail in the same province. Output of lead in base bullion and in concentrates totalled 161,668 tons in 1947 at \$44,200,124, down 8·7 p.c. in quantity but



Canada supplies more than four-fifths of the world's nickel. The famous Frood 'open pit' at Sudbury is 6,500 feet long, varies from 200 to 1,370 feet in width and is 350 feet deep.



Samples of gold being put through the first stages of assaying.

up 85·0 p.c. in value compared with 1946. The all-time record of 256,071 tons was attained in 1942.

The drop in production was mainly in British Columbia where the 1947 tonnage was down to 156,867 tons from 172,931 in 1946; in Quebec there was an advance to 4,088 tons from 3,680 tons, and in Ontario a decline to 141 tons from 350 tons. Quebec's production was the highest on record.

Output of refined lead in 1947 was about 162,000 tons, of which about 40 p.c., or 64,000 tons was used in Canadian factories to make solders, babbitts, battery plates, foil, cable covering, lead chemicals, etc. The domestic use of lead has continued at a record rate being close to 65,000 tons for each of the years 1946 and 1947, more than at any time during the War. In 1947 exports of refined lead amounted to 124,965 tons.

Production of new primary zinc in 1947 at 207,863 tons was down 12 p.c. from the previous year. The record output was in 1943 at 305,377 tons, but the higher average market price brought the 1947 value to an all-time high of \$46,686,010. Production of refined zinc in 1947 was 177,878 tons, of which about 30 p.c. was for sale to Canadian users.

**Gold and Silver.**—There was only a slight improvement in the gold-mining industry in 1947. The labour supply, though a little better, particularly in the latter part of the year, was still inadequate, and with the loss of 10 p.c. on the value of its product the industry was hard pressed to cope with steadily rising costs. Gold production increased 8·4 p.c. in quantity over 1946 to 3,070,221 fine oz., but the value was up only 3 p.c. to \$107,457,735. The record gold production in Canada was attained in 1941 at 5,345,179 fine oz. worth \$205,800,000.

Silver, a by-product of most gold and base metal mines, showed a decline in both quantity and value of output in 1947 to 12,504,018 fine oz. worth \$9,002,893, including silver bullion and silver contained in concentrates exported. Production of fine silver in 1946 was about 10,000,000 fine oz. Canadian consumption of silver for purposes other than coinage was approximately 4,000,000 fine oz. in 1947, mostly for sterling and other silver alloys, photographic chemicals and for plating.

**Miscellaneous Metals.**—Among the minor metals, the principal gains in production were for calcium, cobalt, iron ore and tungsten. Shipments of calcium metal increased from 27 tons in 1946 to 301 tons in 1947, cobalt from 37 tons to 286 tons and iron ore from 1,549,523 tons to 1,919,366 tons. Shipments of tungsten concentrates amounted to 248 tons in 1947.

**Fuels.**—Although the tonnage of coal mined in 1947 at 15,868,866 tons was nearly 11 p.c. lower than in 1946, the value at \$77,475,017 was above the 1946 total. Greater tonnages were reported for British Columbia and Saskatchewan, but the limited gains in these provinces were more than offset by declines of 9 p.c. in Alberta and 25 p.c. in Nova Scotia. Strikes at the mines in the early months of the year was the main factor in the decline of 1,937,584 tons in 1947.

Output of crude petroleum was slightly higher in 1947 at 7,692,492 bbl. against 7,585,555 bbl. in the previous year. Although Alberta's production at 6,770,477 bbl. was less than in 1946, the industry was stimulated and the decline minimized by the new important discoveries in the Leduc field. In Saskatchewan there was an increase to 540,117 bbl. from 116,686 bbl. in 1946.

Production of natural gas was up about 10 p.c. to 52,656,567 cu. ft. in 1947, the gain being almost entirely in Alberta fields.

**Other Non-Metallics.**—Operations in the asbestos-mining industry were far ahead of any previous year, being up to 661,821 tons or 18·6 p.c. more than in 1946, and nearly double the best pre-war year. The gypsum industry also experienced its best year with production up to 2,496,984 tons, a gain of 38 p.c. over the previous year. The tonnage of barite was up to 128,675 from 120,419 in 1946, and sodium sulphate rose to 163,290 tons from 105,919, but other items in the miscellaneous non-metallics group did not show much change from the previous year.

Percentage increases in the structural materials group were as follows: cement, 3 p.c. in quantity and 9 p.c. in value to 11,936,245 bbl. at \$21,968,909; clay products 19 p.c. in value to \$14,486,189; sand and gravel, 49 p.c. in value to \$23,114,431; stone, 47 p.c. in value to \$16,464,749; and lime 16 p.c. in quantity and 21 p.c. in value to 977,413 tons at \$8,542,507.



A pumping well in  
the Vermilion oil  
field, Alberta.

## Mineral Production, by Kinds, 1946 and 1947.

Item	1946		1947	
	Quantity	Value	Quantity	Value
<b>METALLICS</b>				
Bismuth.....lb.	240,504	336,706	284,372	560,213
Cadmium....."	802,648	979,230	718,534	1,235,879
Calcium....."	53,548	68,720	602,665	642,607
Cobalt....."	73,900	70,215	572,673	875,644
Copper....."	367,936,875	46,632,093	451,723,093	91,541,888
Gold.....fine oz.	2,832,554	104,096,359	3,070,221	107,457,735
Iron ore.....ton	1,549,523	6,822,947	1,919,366	9,313,201
Lead.....lb.	353,973,776	23,893,230	323,336,687	44,200,124
Nickel....."	192,124,537	45,385,155	237,251,496	70,650,764
Palladium, rhodium, iridium, etc.....fine oz.	117,566	5,162,801	110,332	4,387,740
Platinum....."	121,771	7,672,791	94,570	5,582,467
Selenium.....lb.	521,867	949,798	501,090	937,038
Silver.....fine oz.	12,544,100	10,493,139	12,504,018	9,002,893
Tin.....lb.	874,186	507,028	714,198	517,794
Zinc....."	470,620,360	36,755,450	415,725,826	46,686,010
Others.....	—	599,027	—	1,526,881
<b>TOTALS, METALLICS.....</b>	<b>—</b>	<b>290,424,689</b>	<b>—</b>	<b>395,118,878</b>
<b>FUELS</b>				
Coal.....ton	17,806,450	75,361,481	15,868,866	77,475,017
Natural gas.....M cu. ft.	47,900,484	12,165,050	52,656,567	13,429,558
Peat.....ton	145	1,305	95	950
Petroleum.....bbl.	7,585,555	14,989,052	7,692,492	19,575,682
<b>TOTALS, FUELS.....</b>	<b>—</b>	<b>102,516,888</b>	<b>—</b>	<b>110,481,207</b>
<b>OTHER NON-METALLICS</b>				
Asbestos.....ton	558,181	25,240,562	661,821	33,005,748
Barite....."	120,419	1,006,473	128,675	1,380,753
Feldspar....."	35,243	384,677	36,104	381,360
Fluorspar....."	8,042	237,491	7,186	209,886
Graphite....."	1,975	180,405	2,398	207,364
Gypsum....."	1,810,937	3,671,503	2,496,984	4,734,853
Magnesitic dolomite and brucite.....	—	1,225,593		1,238,948
Mica.....lb.	8,720,669	199,039	8,318,755	200,903
Nepheline syenite.....ton	61,261	229,198	13,995	167,667
Peat moss....."	96,839	2,395,649	80,018	2,279,821
Quartz....."	1,413,378	1,554,798	1,836,428	1,796,612
Salt....."	537,985	3,626,165	728,545	4,436,930
Sodium sulphate....."	105,919	1,117,683	163,290	1,793,043
Sulphur....."	234,771	1,784,666	221,781	1,822,867
Others.....	—	900,551	—	862,382
<b>TOTALS, OTHER NON-METALLICS</b>	<b>—</b>	<b>43,754,453</b>	<b>—</b>	<b>54,519,137</b>
<b>CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS</b>				
Clay products (brick, tile, etc.).....	—	12,207,367		14,486,189
Cement.....bbl.	11,560,483	20,122,503	11,936,245	21,968,909
Lime.....ton	840,799	7,074,940	977,413	8,542,507
Sand and gravel....."	39,949,994	15,529,700	56,789,569	23,114,431
Stone....."	8,056,260	11,185,711	10,889,388	16,464,749
<b>TOTALS, CLAY PRODUCTS, ETC.</b>	<b>—</b>	<b>66,120,221</b>	<b>—</b>	<b>84,576,785</b>
<b>Grand Totals.....</b>	<b>—</b>	<b>502,816,251</b>	<b>—</b>	<b>644,696,007</b>

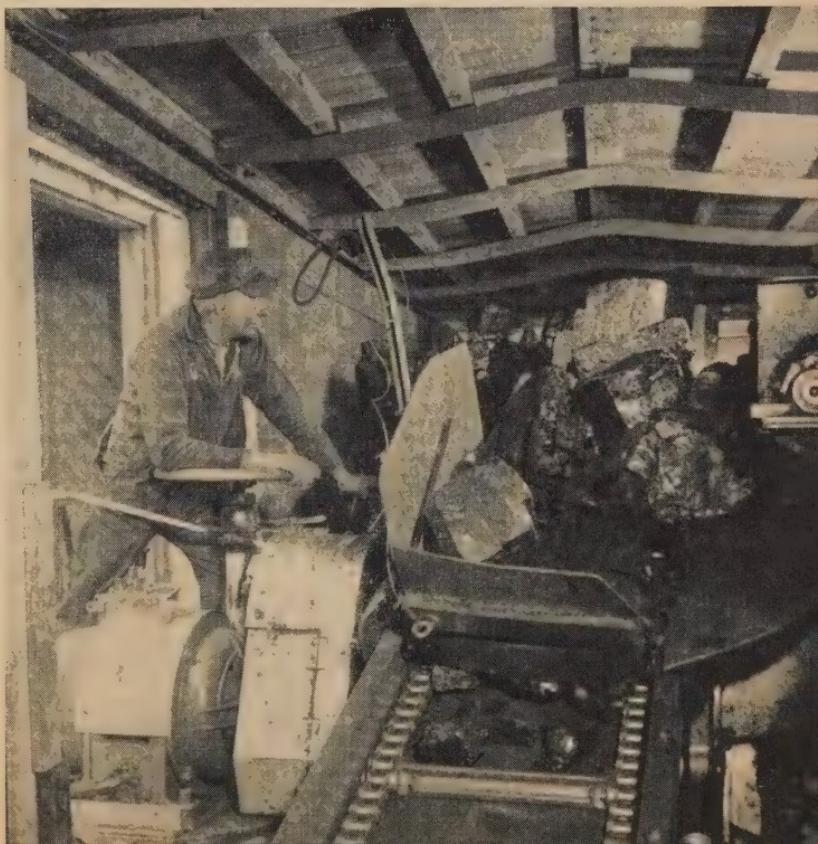
Ontario is the principal mineral-producing province of Canada, the gold and nickel-copper deposits of the northern districts being the outstanding features of the mineral resources of that Province. A great part of Quebec's mineral output is made up of gold, copper and asbestos, while lead and zinc are of chief importance in British Columbia. Nova Scotia and Alberta are the most important coal-producing provinces, Alberta producing also the bulk of the petroleum and natural gas.

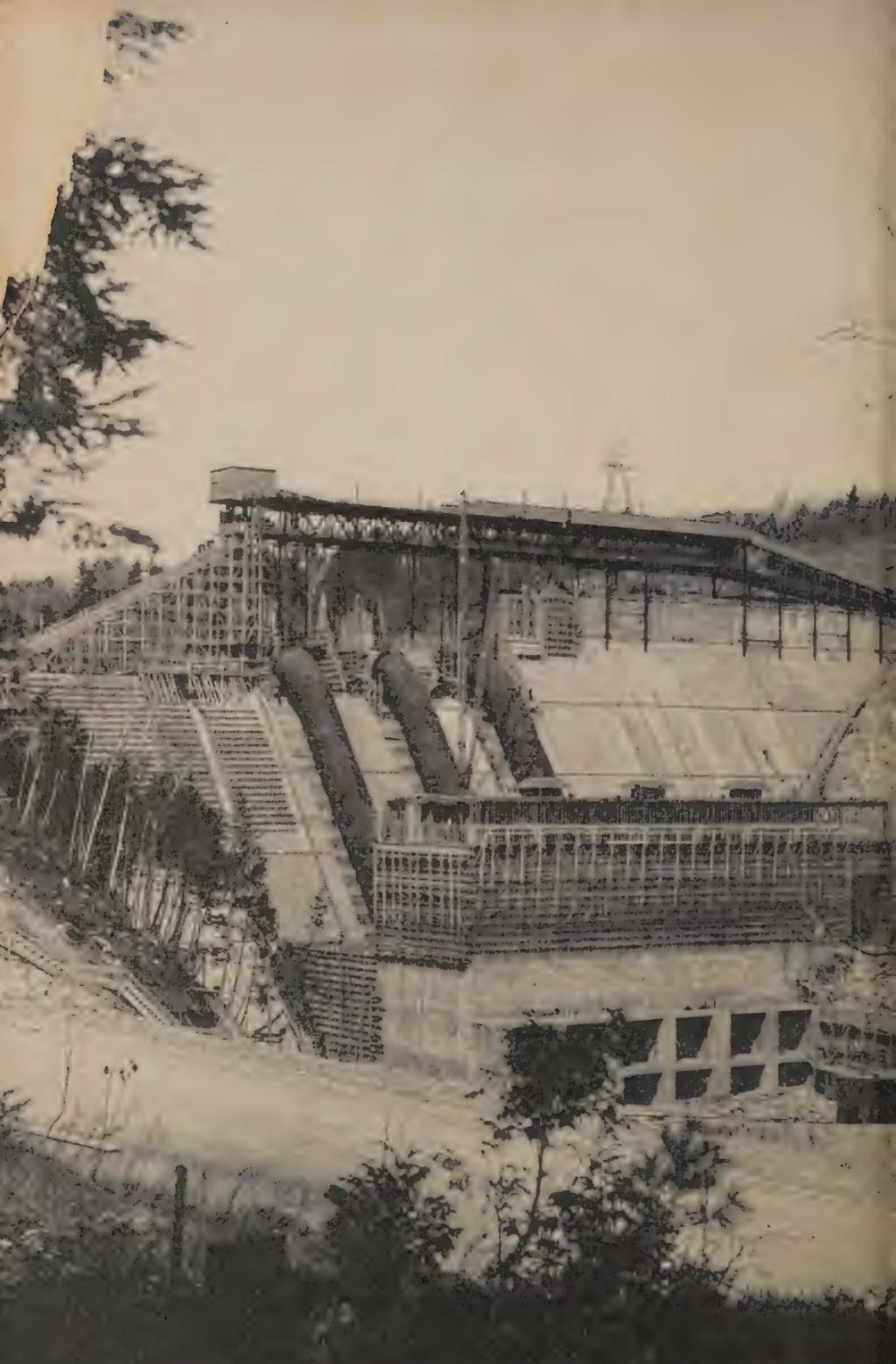
### Mineral Production, by Provinces, 1945-47

Province or Territory	1945		1946		1947	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
	\$		\$		\$	
Nova Scotia.....	32,220,659	6.5	35,350,271	7.0	34,255,560	5.3
New Brunswick.....	4,182,100	0.8	4,813,166	0.9	5,812,943	0.9
Quebec.....	91,518,120	18.3	92,785,148	18.5	115,151,635	17.9
Ontario.....	216,541,856	43.4	191,544,429	38.1	249,623,703	38.7
Manitoba.....	14,429,423	2.9	16,403,549	3.3	18,236,763	2.8
Saskatchewan.....	22,336,074	4.5	24,480,900	4.9	32,594,016	5.1
Alberta.....	51,753,237	10.5	60,082,513	12.0	67,432,270	10.5
British Columbia.....	64,063,842	12.8	74,622,846	14.8	116,772,621	18.1
Yukon.....	1,239,058	0.2	1,693,904	0.3	2,095,508	0.3
Northwest Territories <sup>1</sup>	470,812	0.1	1,039,525	0.2	2,720,988	0.4
Totals <sup>1</sup> .....	498,755,181	100.0	502,816,251	100.0	644,696,007	100.0

<sup>1</sup> Excluding pitchblende products.

Alberta coal being loaded into box cars. The efficient belted boom transports the coal to the ends and corners of the car.





Construction on the Stewartville development on the Madawaska River, Ontario. This 80,000 h.p. generating station was placed in service in September, 1948.

# Water Powers

THE potential power available from the falls and rapids on the numerous rivers, large and small, which are distributed across Canada, constitutes one of the country's great natural resources. In most provinces precipitation and topography are favourable to power development: in the Maritimes, while there are no large rivers, the precipitation is moderately heavy and many of the streams have steep gradients; the great St. Lawrence River system, which covers a large portion of Quebec and Ontario, offers tremendous power possibilities, a considerable part of which has been developed; the rivers flowing into Hudson Bay have large reserves of potential power of which only a small proportion is used; the tributaries of the Mackenzie River system present numerous opportunities for power development; and the mountainous rivers in British Columbia, where the precipitation is very high, have abundant resources of water power.

Low-cost hydro-electric energy is fundamental to the industrial activities of Canada, and is the basis upon which several essential industries have been built. These include the pulp, paper and wood-products industries which absorb enormous amounts of hydraulic and hydro-electric power; mining, milling and refining of base and precious metals together with their fabrication; electro-chemical industries; and also lighter manufacturing such as food-processing and textile production. The wide distribution of hydro-electric power has contributed largely to the high standard of living in Canada by providing economical domestic service to homes and farms, a service which is being rapidly extended.

From hydro-electric developments ranging in size from a few hundred to more than one million horse-power, networks of transmission lines carry power to most urban centres of Canada, to rural areas in many parts of the country, and to industries in isolated locations.

As an installation of hydraulic capacity averaging 30 p.c. in excess of available power, indicated by the ordinary six-month flow, has been found to be sound commercial practice, it is estimated that Canada's presently recorded water-power resources represent a feasible installation of more than 52,000,000 h.p. Thus the present total of installed capacity is only 21 p.c. of the possible turbine installation.

During 1948 the demand for hydro-electric energy expanded throughout the Dominion as a result of the high level of industrial activity and increased commercial, rural and domestic consumption. The output of primary power by central stations exceeded that for 1947, the previous high year, by nearly 10 p.c. and was well in excess of double the average amount for the pre-war period 1935-39. This high demand, in conjunction with deficient run-off on some rivers, caused a shortage of power in certain areas, particularly in southern Ontario where power rationing went into effect in September. Although new capacity coming into operation during the year totalled 440,095 h.p., the completion of the larger plants now under construction or planned will be necessary before any reserve capacity becomes available.

**Available and Developed Water Power, by Provinces, Dec. 31, 1948**

Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency		Turbine Installation
	At Ordinary Minimum Flow	At Ordinary Six-Month Flow	
	h.p.	h.p.	
Prince Edward Island.....	3,000	5,300	2,617
Nova Scotia.....	20,800	128,300	140,884
New Brunswick.....	68,600	169,100	133,347
Quebec.....	8,459,000	13,064,000	5,996,872
Ontario.....	5,407,200	7,261,400	2,894,240
Manitoba.....	3,309,000	5,344,500	506,825
Saskatchewan.....	542,000	1,082,000	111,835
Alberta.....	507,800	1,258,000	106,560
British Columbia.....	7,023,000	10,998,000	1,009,769
Yukon and Northwest Territories.....	382,500	813,500	28,069
<b>Canada.....</b>	<b>25,722,900</b>	<b>40,124,100</b>	<b>10,931,018</b>

**Provincial Distribution of Water Power.**—The water powers of the *Maritime Provinces*, despite the lack of large rivers, constitute a valuable source of electric power, a considerable proportion of which has been developed. *Quebec* ranks highest in available water-power resources, having over 32 p.c. of the total recorded for all Canada; it has made remarkable progress as its present installation of 5,996,872 h.p. represents nearly 55 p.c. of the total for Canada. The Saguenay River Shipshaw development of 1,200,000 h.p. and the St. Lawrence River Beauharnois Plant of 742,000 h.p. are the two largest in Canada. The Province of *Ontario* has extensive water-power resources and in total hydro-power developed is exceeded only by *Quebec*. The Hydro-Electric Power Commission of Ontario operates 57 generating stations with installations totalling nearly 2,000,000 h.p., the largest being the Niagara River Queenston Plant of 560,000 h.p.; a large amount of power is also purchased.

*Manitoba* has more water-power resources and has developed them to a greater extent than either of the other Prairie Provinces. Practically all of the developed sites centre on the Winnipeg River. These supply not only Winnipeg and its suburban areas but, through the transmission network of the Manitoba Power Commission, power is distributed to more than 200 municipalities and a large part of the rural areas of southern Manitoba where farm electrification is a primary objective. In *Saskatchewan* water-power development is confined to the northern mining districts. The southern portions of *Saskatchewan* and *Alberta*, which are lacking in water-power resources, have large fuel reserves. In *Alberta*, present developments are located in the Bow River Basin from which power is delivered to the transmission system serving Calgary and numerous other municipalities between the International Boundary and the area north of Edmonton. However, the larger part of power resources is located north of, and remote from, the centres of population.

*British Columbia*, traversed by three distinct mountain ranges and with favourable climate and rainfall, ranks second among the provinces in available power resources and its hydraulic development is exceeded only by *Quebec* and *Ontario*. Present developments are practically all located in the



A tunnel, 30 feet in diameter and 900 feet long, will divert the waters of the Mississagi River, near Lake Huron's northern shore, in order that construction of the power project can be carried on below the water line. When this \$18,000,000 project is completed, the tunnel will be closed off.

southern part of the Province in the Fraser and Columbia River Basins, although resources are well distributed. In Yukon and the Northwest Territories, there are numerous rivers offering opportunities for power development, although relatively light precipitation and a prolonged winter season limit favourable sites to locations where adequate storage is available. Successful developments have been made for local mining purposes.

**Hydro-Electric Construction during 1948.**—Although the total of installed hydraulic capacity in Canada was increased by over 400,000 h.p. during the year, the continued growth in demand for hydro-electric energy not only readily absorbed the additional power produced but created a shortage in a number of districts during the peak-load winter period. This condition resulted in an accelerated program of hydro-electric development and the plants under advanced construction will have a capacity of about 800,000 h.p.; definite planning covers additional sites and plant enlargements totalling 1,500,000 h.p. and other long-range plans, including the St. Lawrence River, envisage the development of a further 2,500,000 h.p.

**Ontario.**—During 1948, the Hydro-Electric Power Commission of Ontario brought into operation two moderately large developments, one of

81,000 h.p. on the Madawaska River at Stewartville and one of 53,500 h.p. at Aguasabon on the north shore of Lake Superior; an additional unit of 7,500 h.p. was installed in the Ear Falls plant on the English River. Good progress was made on the major development of the Commission at Des Joachims on the Ottawa River and it is planned to have five units of 60,000 h.p. each in operation in 1950; the plant will have an ultimate capacity of 480,000 h.p. Active construction, with the diversion tunnel completed, also was well underway on the Mississagi River site of 58,000 h.p. near Thessalon. On the Nipigon River at Pine Portage, excavation of the diversion channel was begun in September and the construction schedule calls for completion of two units of 40,000 h.p. each in 1950 and two additional units as required. Preliminary operations and surveys were under way on the Chenaux and Cave sites on the Ottawa River having ultimate capacities of 160,000 h.p. and 240,000 h.p., respectively. Other sites are also under investigation.

Two small plants were brought into operation during the year by other authorities, one of 1,200 h.p. on the North Muskoka River by the town of Bracebridge and one of 1,300 h.p. at Jones Falls, Rideau Canal, by the Gananoque Electric Light and Water Supply Company.

*Quebec.*—The Shawinigan Water and Power Company, serving a large area in central Quebec from generating plants and purchased power totalling 1,250,000 h.p., brought into operation one 65,000 h.p. unit of a 195,000 h.p. development in 1948 at Shawinigan Falls on the St. Maurice River. The Company also has begun construction of a new development at La Trenche Rapids on the St. Maurice River which will have an initial capacity of 320,000 h.p. and an ultimate capacity of 384,000 h.p. in six units; it is planned to have the plant in partial operation in 1951.

The Quebec Hydro-Electric Commission, serving chiefly the city of Montreal and environs, completed its No. 1 powerhouse at Beauharnois on the St. Lawrence River by adding the fourteenth unit of 53,000 h.p. Work also commenced on No. 2 powerhouse which will have an ultimate capacity of 600,000 h.p.; operation of the first three units of 53,000 h.p. each is planned for 1951. As administrator for the Quebec Government's Rapid VII Plant on the Ottawa River, the Commission has completed the construction of a storage dam at Lake Dozois and is installing a fourth unit of 16,000 h.p. in the plant for operation in 1949.

The Gatineau Power Company is building a dam on a channel of the Ottawa River which will increase the flow to its Bryson plant and allow the addition of a new unit of 27,000 h.p. which will be in operation in 1949.

The Northern Quebec Power Company has work in progress at its Quinze River development in northwestern Quebec which will increase plant capacity by 10,000 h.p. in 1949 and by 34,500 h.p. in 1950.

*British Columbia.*—The British Columbia Power Commission brought into operation the second unit of 28,000 h.p. in its Campbell River plant, Vancouver Island, and work is proceeding towards the construction of a storage dam at Ladore Falls and the installation of two additional units during 1949; the ultimate capacity of the plant will be 168,000 h.p. in six units. The Commission also commenced construction of a 30,000 h.p. development at Whatshan Lake in central British Columbia.

On Bridge River, a tributary of the Fraser River, the British Columbia Electric Railway Company is constructing a major hydro-electric development with an ultimate capacity of 620,000 h.p. The first stage, covering a 13,200-foot tunnel through Mission Mountain and a powerhouse on Seton Lake, is well advanced and the first unit of 62,000 h.p. was brought into operation in 1948, with two units to follow in 1949. The project involves the building of a storage dam at La Joie Falls.

At Brilliant on the Kootenay River, the Consolidated Mining and Smelting Company of Canada has work under way to enlarge its plant during 1949 by adding a third unit of 37,000 h.p. Also on the Kootenay River, the city of Nelson was installing in 1948 a new unit of 6,750 h.p. in its Upper Bonnington plant. Four other small projects were brought into operation.

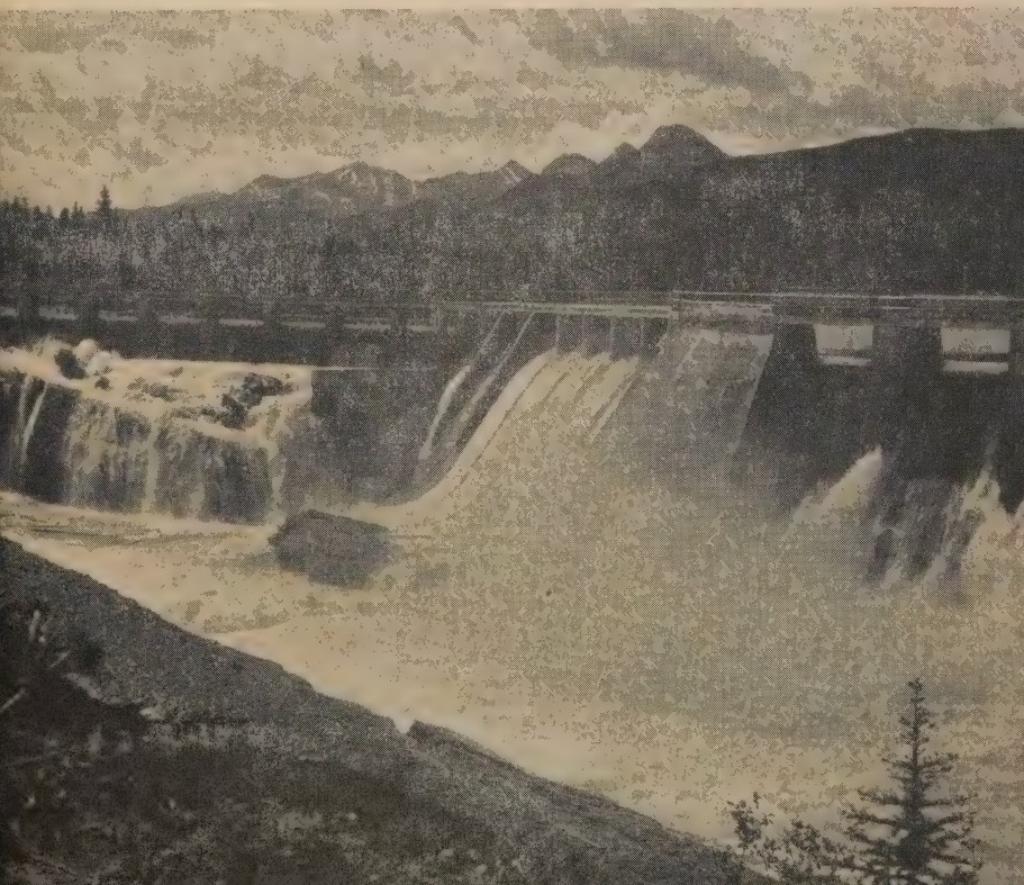
*Prairie Provinces.*—No new developments were made in Alberta but the Calgary Power Company is planning a development of about 65,000 h.p. at Spray Lake in the upper Bow River basin.

In Saskatchewan, the Churchill River Power Company during 1948 added a sixth unit of 21,000 h.p. to its Island Falls plant, bringing the total capacity to 108,500 h.p.

In Manitoba, the city of Winnipeg completed its plant at Slave Falls, Winnipeg River, by installing the final unit of 12,000 h.p. bringing the capacity

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**Seeke Dam on the Bow River, Alberta.** Hydro generating plants on this river and its tributaries provide a total of 105,000 h.p. and supply the cities of Calgary and Red Deer as well as numerous smaller centres in central and southern Alberta.





Hydro crews work their way through the rural sections of Manitoba, bringing electricity to isolated farm sections. Under the provincial electrification program, the farmer's cost includes his yard and interior wiring only. The objective is the wiring of 5,000 farms annually.

to 96,000 h.p. The Winnipeg Electric Company has work in progress at its Seven Sisters plant, Winnipeg River, to raise the head and install two additional units of 37,500 h.p. each, one in 1949 and the second in 1950; late in 1948 plant capacity was increased by 36,000 h.p. by the lowering of the tailrace. The Manitoba Government is proceeding to develop Pine Falls on the Winnipeg River totalling 114,000 h.p. and has under investigation sites on other rivers.

*Northwest Territories.*—The Federal Government through the Department of Mines and Resources has completed its 8,350 h.p. development on the Snare River, about 92 miles northwest of Yellowknife, and power is being delivered to mines and other consumers in the Yellowknife area. Other sites on the Snare River are being investigated.

*Nova Scotia.*—The Nova Scotia Power Commission brought into initial operation 2,900 h.p. in its Dickie Brook plant which will ultimately develop 5,900 h.p. It is also proceeding to construct a development of 12,000 h.p. on the Mersey River and investigating the Bad Falls site on the Tusket River.

The Nova Scotia Light and Power Company in 1948 completed its 4,600 h.p. plant on Methalls Brook and is proceeding with an addition of 4,500 h.p. to its Black River plant, to come into operation in 1949.

### Central Electric Stations

Central electric stations are companies, municipalities or individuals selling or distributing electric energy generated by themselves or purchased for resale. They are divided into two classes according to ownership: (1) commercial—those privately owned and operated by companies or individuals, and (2) municipal—those owned and operated by municipalities or Provincial Governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 88 p.c. of the total capacity of hydraulic installations in all industries in Canada and the generators driven by this hydraulic equipment generate 98 p.c. of the total output

of all central electric stations. The fuel stations number 288 and 49 hydraulic stations have thermal auxiliary equipment.

The central electric stations industry is one particularly suited to large-scale operation because of the huge outlays of capital required. Capital invested and total horse-power installed increased almost continuously even during the depression years, mainly because large power projects, planned before the depression, were in process of construction.

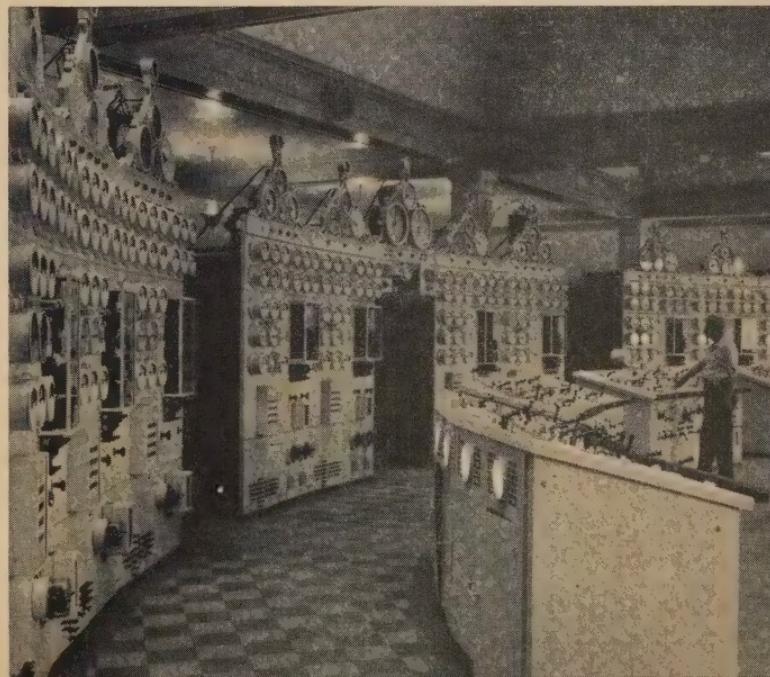
Statistics for the production of electricity by central electric stations were first compiled in 1919. From the 5,500,000,000 kwh. produced in that year the output doubled by 1925, and reached 18,000,000,000 kwh. by 1930. After a period of decline in the early 1930's, there was an almost continuous succession of increases and in 1948 the average monthly output was eight times what it had been in 1919, despite low water in many localities.

#### Average Monthly Output of Central Electric Stations, 1929-48

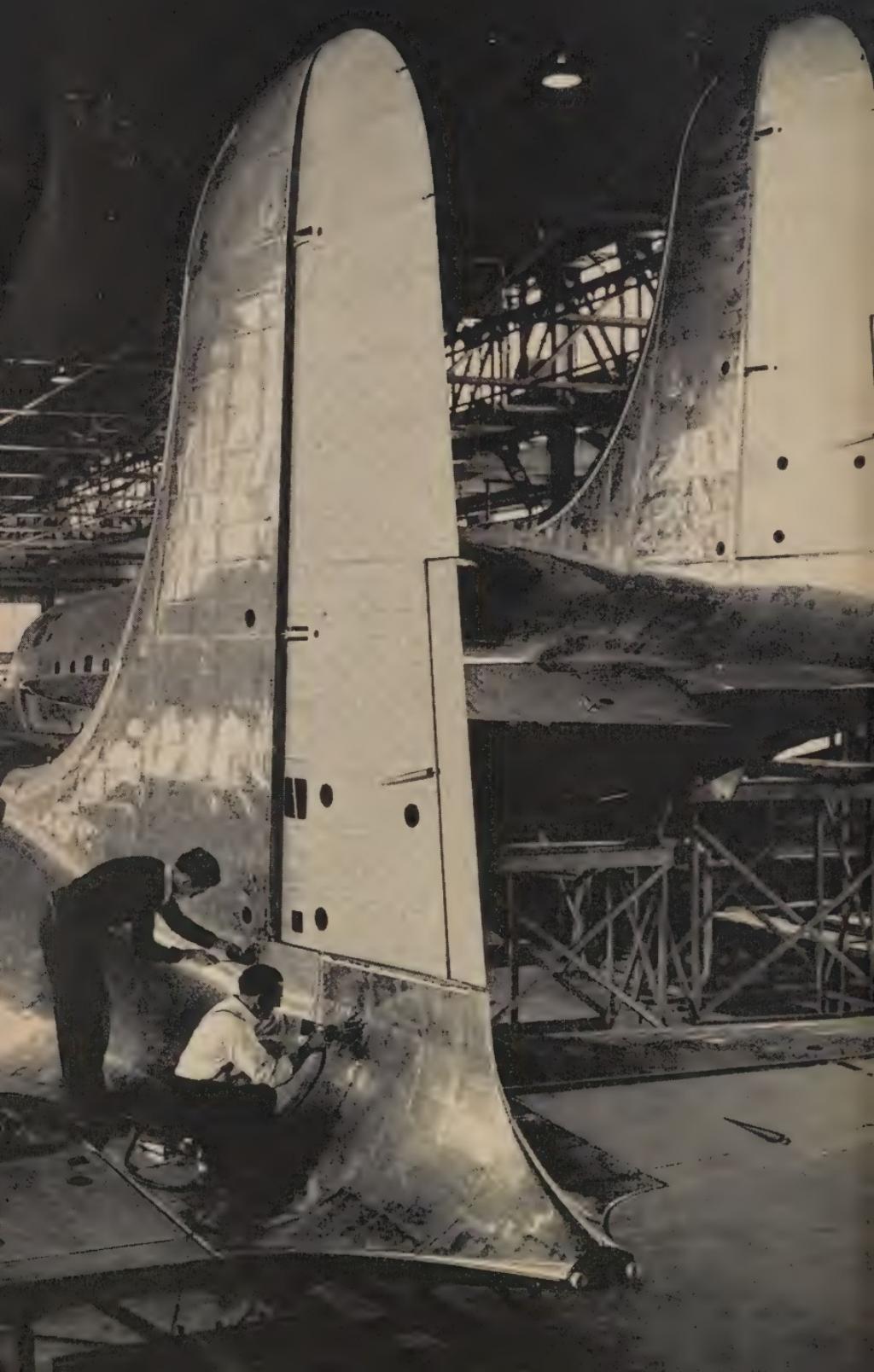
Year	From Water '000 kwh.	From Fuel '000 kwh.	Total '000 kwh.	Year	From Water '000 kwh.	From Fuel '000 kwh.	Total '000 kwh.
1929 . . . . .	1,441,203	27,622	1,468,825	1943 . . . . .	3,299,998	64,807	3,364,805
1932 . . . . .	1,296,360	25,845	1,322,205	1944 . . . . .	3,290,538	81,637	3,372,175
1939 . . . . .	2,321,815	40,811	2,362,626	1945 . . . . .	3,262,771	78,946	3,341,717
1940 . . . . .	2,460,466	46,222	2,506,688	1946 . . . . .	3,382,602	84,374	3,466,976
1941 . . . . .	2,731,880	55,233	2,787,113	1947 . . . . .	3,657,843	91,021	3,748,864
1942 . . . . .	3,037,823	62,109	3,099,932	1948 . . . . .	3,613,200	108,800	3,722,000

Revenues of central stations in 1946 amounted to \$226,096,273 and 2,104,549 domestic customers were served, representing approximately two-thirds of all families in Canada, both urban and rural.

Electric energy is exported from Canada only under licence and an export tax of 0·03 cent per kwh. is levied. Exports showed a steady increase from 1936 to 1945 amounting to 2,646,435,000 kwh. in 1945, but declined to 2,066,487,000 kwh. in 1947, as increasing domestic demand left less available for export.



Control room of the Queenston-Chippawa generating station, Niagara Falls, Ontario.



# Manufactures

**T**

HE chief forward movement in the development of Canadian manufactures has been the result of three great influences: first, the opening of the west at the beginning of the present century, which greatly increased the demand for manufactured goods of all kinds, especially construction materials; secondly, the First World War which left a permanent imprint upon the variety and efficiency of Canadian plants; and thirdly, the Second World War with its insatiable demands for food and manufactured materials of all sorts.

More especially during the Second World War the situation created as a result of Canada's strategic position as a source of food and armaments had far-reaching effects on the magnitude and diversification of Canadian manufacturing production, with the result that Canada has now entered a new era in manufacturing development.

The estimated value of manufactured products in 1947 reached the record total of \$9,976,497,000, representing an increase of 24.2 p.c. over the value reported in 1946, and 10 p.c. over the previous high point reached in 1944 when manufacturing was directed fully to war production.

## Statistics of Manufactures, 1870-1947

Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
							\$'000
1870.....	41,259	77,964	187,942	40,851	124,908	96,710	221,618
1880.....	49,722	165,303	254,935	59,429	179,919	129,757	309,676
1890 <sup>1</sup> .....	75,964	353,213	369,595	100,415	250,759	219,089	469,848
1900 <sup>2</sup> .....	14,650	446,916	339,173	113,249	266,528	214,526	481,053
1910 <sup>2</sup> .....	19,218	1,247,584	515,203	241,008	601,509	564,467	1,165,976
1920 <sup>1</sup> .....	22,157	2,914,519	591,753	711,080	2,083,580	1,609,169	3,692,748
1929.....	22,216	4,004,892	666,531	777,291	2,029,671	1,755,387 <sup>3</sup>	3,883,446
1933.....	23,780	3,279,260	468,658	436,248	967,789	919,671	1,954,076
1937.....	24,834	3,465,228	660,451	721,727	2,006,927	1,508,925	3,625,460
1939.....	24,805	3,647,024	658,114	737,811	1,836,159	1,531,052	3,474,784
1940.....	25,513	4,095,717	762,244	920,873	2,449,722	1,942,471	4,529,173
1941.....	26,293	4,905,504	961,178	1,264,863	3,296,547	2,605,120	6,076,308
1942.....	27,862	5,488,786	1,152,091	1,682,805	4,037,103	3,309,974	7,553,795
1943.....	27,652	6,317,167	1,241,068	1,987,292	4,690,493	3,816,414	8,732,861
1944.....	28,483	4	1,222,882	2,029,621	4,832,333	4,015,776	9,073,693
1945.....	29,050	4	1,119,372	1,845,773	4,473,669	3,564,316	8,250,369
1946.....	31,249	4	1,058,156	1,740,687	4,358,234	3,467,004	8,035,692
1947 <sup>5</sup> .....	6	4	1,120,445	2,069,624	5,484,620	4,244,080	9,976,497

<sup>1</sup> From 1870 to 1890 and from 1920 to 1947 the figures include all establishments irrespective of the number of employees, but exclude construction and custom and repair work. <sup>2</sup> Includes all establishments employing five hands or over. <sup>3</sup> For and since 1929 the figures for the net value of production represent the gross value less the cost of materials, fuel and electricity. Prior to this, only the cost of materials is deducted. <sup>4</sup> Not collected.

<sup>5</sup> Subject to revision. <sup>6</sup> Not estimated.

Due to the rise in prices the physical volume of production, however, did not expand to the same extent as these value figures indicate. The index of the physical volume of production (1935-39=100) which stood at 106·3 in 1939, jumped to a high of 187·7 in 1943 and then declined steadily to 150·3 in 1946. It is expected that the index in 1947 will be somewhere around 158, thus increasing by 49 p.c. between 1939 and 1947 as compared with 187 p.c. in the gross value of production.

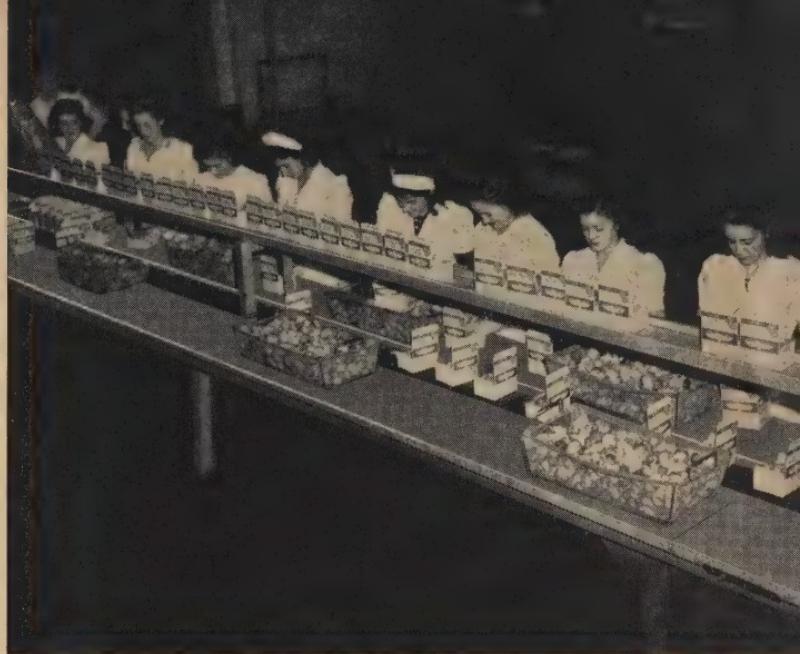
The employees engaged in manufacturing totalled about 1,120,000 in 1947 but were still below the record numbers employed in 1943 and 1944. Between 1939 and 1947 the increase in employment was approximately 70 p.c. The amount paid out in salaries and wages in 1947 was, however, at an all-time high and represented an increase of 181 p.c. over 1939.

### *Statistics of Manufactures, by Provinces and Purpose Groups, 1946*

Province and Group	Estab-	Employees	Salaries	Cost	Net Value of Products	Gross Value of Products
	lish-		and Wages	of Materials		
	No.	No.	\$'000	\$'000	\$'000	\$'000
Prince Edward Island.....	246	1,755	1,651	7,582	3,469	11,200
Nova Scotia.....	1,397	29,724	43,060	100,354	71,739	178,793
New Brunswick.....	993	22,732	33,152	96,389	67,783	170,754
Quebec.....	10,818	357,276	565,986	1,297,009	1,125,992	2,497,972
Ontario.....	11,424	498,120	845,217	2,001,901	1,659,284	3,754,524
Manitoba.....	1,357	38,367	61,018	223,097	122,781	351,887
Saskatchewan.....	955	11,957	17,956	126,596	38,460	168,356
Alberta.....	1,315	22,649	34,939	169,425	83,735	257,032
British Columbia.....	2,731	75,484	137,507	335,709	293,353	644,528
Yukon and N.W.T.....	13	92	201	173	409	646
<b>Totals.....</b>	<b>31,249</b>	<b>1,058,156</b>	<b>1,740,687</b>	<b>4,358,235</b>	<b>3,467,005</b>	<b>8,035,692</b>
Producers materials.....	10,148	320,766	541,038	1,260,493	1,121,849	2,508,084
Food.....	8,307	142,948	208,247	1,344,869	445,583	1,814,909
Industrial equipment.....	3,224	191,864	336,666	624,738	649,539	1,306,685
Vehicles and vessels.....	466	106,870	209,206	318,486	323,005	653,217
Clothing.....	3,401	132,018	179,303	344,489	313,084	660,853
Drink and tobacco.....	659	29,435	48,852	144,198	201,409	349,914
Books and stationery.....	2,591	56,642	98,161	100,762	183,401	286,844
House furnishings, etc.....	1,380	46,552	72,474	113,498	124,634	241,541
Personal utilities.....	831	22,878	33,331	72,389	74,218	147,894
Miscellaneous.....	242	8,183	13,409	34,314	30,283	65,751

**Food Industries.**—The food industries of Canada contribute about one-quarter of the total output of manufactured products. In 1946 the gross production of the food industries was valued at \$1,814,909,000 or 22·6 p.c. of the total. The leading industries, with the gross value of production in 1946, were as follows: slaughtering and meat packing, \$475,953,154; flour and feed mills, \$260,659,451; butter and cheese, \$234,664,461; bread and other bakery products, \$148,362,528; fruit and vegetable preparations, \$136,004,138; miscellaneous foods, \$110,051,938; fish curing and packing, \$100,201,291; biscuits, confectionery, cocoa, etc., \$86,714,459; prepared stock and poultry feeds, \$83,594,177; sugar refining, \$61,181,621; and condensed milk, \$35,641,045. Each of these industries, with the exception of sugar refining, reported substantial increases; all told there was an increase of 42 p.c. in the physical volume of production since 1939.

Packing vegetables  
in a freezing  
plant.



*Slaughtering and Meat Packing.*—Slaughtering and meat packing is the leading industry in the food group and in 1946 ranked second among all the manufacturing industries of Canada in gross value of production which amounted to \$475,953,154. This was a decrease of 6 p.c. from the figure of \$504,849,523 for 1945. In 1946 the industry provided employment for 22,536 persons who were paid \$40,313,025 in salaries and wages, and paid out \$341,000,000 for live stock. Of the 147 establishments reporting in 1946, 14 contributed 57 p.c. of the total output.

*Dairy Products.*—Statistics of the dairying branch of manufacturing are given in the chapter on Agriculture, pp. 119-122.

*Flour Milling.*—The maximum daily capacity of Canada's flour mills is 99,460 bbl. per day of 24 hours, or an annual running capacity of about 30,000,000 bbl. The output of flour during the 1946-47 crop year amounted to 28,588,456 bbl., the highest on record, and an increase of about 44 p.c. over the previous ten-year average. Production in the 1947-48 crop year was lower, amounting to 24,243,711 bbl. Exports of wheat flour to all countries increased to 16,896,233 bbl. in the crop year 1946-47 from an export of only 3,609,656 bbl. in 1937-38. Exports in 1947-48 amounted to 13,661,573 bbl.

*Canned Foods.*—Both the quantity and value of foods canned in Canada increased in 1946 over 1945, the increase in value being from \$159,114,971 to \$211,350,273. The quantity of fruits canned was nearly double that of the previous year while meats increased by 44 p.c., vegetables by 28 p.c., soups by 55 p.c. and concentrated milk by 2 p.c. The quantity of fish canned showed a slight decrease. During recent years the output of canned meats has shown a greater increase than any other canned product.

Over 35 p.c. of the total value of canned foods in 1946 found their way to foreign markets. Fish accounted for 41 p.c. of the exports, meats and soups for 37 p.c. and milk for 13 p.c.



CANADA'S  
TEXTILE  
INDUSTRIES  
PRODUCE A  
GREAT VARIETY  
OF PRODUCTS.

sclicing papermakers felts, which are in reality huge woollen blankets woven on broad looms, into endless belts. Their function is to carry paper through the rollers of the paper machine.

#### Principal Foods Canned in Canada, 1939, 1945 and 1946

Product	1939		1945		1946	
	Quantity	Value	Quantity	Value	Quantity	Value
	'000	\$'000	'000	\$'000	'000	\$'000
Fish..... lb.	108,893	15,479	189,406	34,473	178,104	39,128
Fruits..... "	116,500	7,769	56,650	5,709	108,354	12,000
Vegetables..... "	251,432	14,527	320,364	22,643	409,954	31,107
Meats..... "	7,887	1,743	145,858	32,867	210,099	43,711
Soups..... "	96,660	9,259	131,908	15,869	204,669	25,093
Other foods..... "	—	9,114	—	17,659	—	27,261
Concentrated milk... cwt.	1,660	11,576	2,953	29,895	3,025	33,050
Totals.....	—	69,467	—	159,115	—	211,350

**Textile Industries.**—Freed from the demands of war and encouraged by the relaxation of the hitherto necessary restrictions on civilian production, the textile industries in 1946 and 1947 made noteworthy progress towards satisfying an abnormally large demand for textile products. Problems of conversion harassed the industries somewhat in the earlier year but resulted in only a temporary slowing down.

Great as was textile production for each of the two years, it was still substantially below that of 1942, the peak year. For that year the index of the physical volume of production stood at 152.4, an increase of 45.3 p.c. as compared with 1939. Declines in volume were recorded in the following four years, 140.2 for 1943, 136.2 for 1944, 134.7 for 1945 and 134.1 for 1946. Preliminary estimates for 1947 gave an index of approximately 141, 34 p.c. higher than in 1939.



Skeins of rayon  
thread undergoing inspection before being woven into fabric.



Yards of flannelette rolling off the looms in a cotton factory.



Preliminary figures for 1947 show that the textile industries, when compared with other divisions of Canadian manufacturing, ranked fifth in gross value of product with a production of \$1,056,869,000. Wages and salaries amounted to \$269,704,000 or 13 p.c. of the total and employment was given to 176,000 persons. There were 31,200 persons employed in the women's factory clothing group, 29,600 in men's factory clothing, 26,600 in hosiery and knitted goods, 24,100 in cotton goods and 14,600 in the silk (incl. artificial) industry.



In the years immediately preceding the War, almost half the women employed in all manufacturing industries were found in the textile industries. During the War the proportion continued to drop until in 1944 only about 26 p.c. were so employed. However, the proportion has since shown a gradual increase, having advanced to 30 p.c. in 1945 and to approximately 35 p.c. in 1946.

The individual industries comprising the textile group are to a high degree centralized in Quebec and Ontario.

**Iron and Steel Industries.**—The three major corporations that constitute the core of the industry in Canada—the Steel Company of Canada, Limited; the Algoma Steel Corporation, Limited; and the Dominion Steel and Coal Corporation—are self-contained in that they process iron and steel from the ore through to the semi-finished and finished articles. These articles consist of billets, rails and fastenings, bars, wire rods, structural shapes, sheets and sheet piling, plates, light shapes, wire, fencing, nails, screws, bolts, nuts, forgings, pipe, etc. The capacity of Canadian furnaces, two of which are the largest blast furnaces in the Commonwealth, is 2,744,000 net tons per annum. The output of pig iron in 1947 was 1,969,847 (preliminary) net tons compared with 1,406,252 tons in 1946 and 846,418 tons in 1939.

Notable expansion occurred during the war years in connection with alloy steels and steel plates. The production capacity and output of alloy steels was multiplied six times, making Canada practically independent in providing the types used in guns, armour plate and machine tools. In all there were 131 steel furnaces in Canada in 1947, including 49 open-hearth units, 79 electric units and 3 converters. The capacity amounts to 3,547,000 tons including 3,245,000 tons ingot capacity and 302,000 tons for castings. Steel production in 1947 amounted to 2,945,166 (preliminary) tons compared with the record of 3,109,851 tons in 1942 and with the best pre-war tonnage of 1,571,227 in 1937.

A preliminary analysis of the 1947 reports places the gross value of the output of iron and steel and their products at \$1,779,718,604 at factory prices, an amount 26·6 p.c. above the corresponding figure for 1946.

The values by industries were as follows, in millions of dollars: pig iron, ferro-alloys, steel and rolled products \$200·1; iron castings \$100·7; heating and cooking apparatus \$43·8; boilers, tanks and platework \$35·0; farm implements \$88·7; machinery \$192·1; automobiles \$340·9; automobile parts \$107·4; bicycles \$4·1; aircraft \$45·4; shipbuilding \$96·9; railway rolling-stock and parts \$148·2; wire and wire goods \$54·6; sheet metal products \$130·9; hardware, cutlery and tools \$80·9; bridge and structural steel work \$51·3; machine shops \$22·5; and miscellaneous iron and steel products \$36·0.

The distribution of this production by provinces was as follows, in millions of dollars: Ontario, \$1,201·6; Quebec, \$362·5; British Columbia, \$73·8; Manitoba, \$55·8; Nova Scotia, \$50·3; Alberta, \$15·9; New Brunswick, \$15·7; Saskatchewan, \$3·4; and Prince Edward Island, \$0·6.

In 1947 a total of 2,482 factories operated in this group, employing a monthly average of 260,635 people who were paid \$547,700,000 in salaries and wages. Materials used in manufacturing processes cost \$829,200,000 and fuel and electricity cost \$41,300,000.

**Chemicals and Allied Products.**—Output from the chemical and allied industries in 1947 totalled \$448,000,000 compared with \$376,000,000 in 1946. Apparently the 19 p.c. increase in value was due chiefly to advances in prices for chemicals and chemical products. The volume index (preliminary) for the chemical group indicated a gain of 6 p.c. The index of employment for the chemicals and allied industries was up only 2 p.c. from 1946, but, on the other hand, the index of wholesale prices advanced 18 p.c. About one-third of the gain in 1947 was due to greater volume of production, while two-thirds was due to the higher prices realized.



*The end of the assembly line where all cars are inspected and tested for needed adjustments.  
In this plant completely built cars roll off the line at the rate of one every two minutes.*

The year 1947 was the best ever experienced by the chemical industries, with the exception, possibly, of some of the war years. There was a continuation of the heavy demand for most chemicals and chemical products; the labour situation was somewhat brighter; easing in the supply of building materials permitted expansions, renovations and new construction that had been held at the planning stage for some time; and although world conditions still hampered the supply of certain raw materials, there were substantial advances in imports and in exports. Compared with 1939, the best pre-war year, the value of output was up 180 p.c. and the volume was higher by 75 p.c.

In 1947 there were substantial increases in output in 10 of the 12 industries of the group as follows: coal tar distillation, 28.5 p.c.; heavy chemicals, 29.0 p.c.; compressed gases, 39.2 p.c.; fertilizers, 28.3 p.c.; paints and varnishes, 21.4 p.c.; soaps and cleaning preparations, 37.4 p.c.; miscellaneous, 24.4 p.c.; inks, 7.4 p.c.; adhesives, 7.9 p.c.; and medicinals, 2.5 p.c. The toilet preparations industry showed a decline of 20.5 p.c. and output from the polishes industry decreased by 7.2 p.c.

With regard to price increases, it appears that the advances were mainly for prepared paints, fertilizers, etc., and for certain imported dyes and

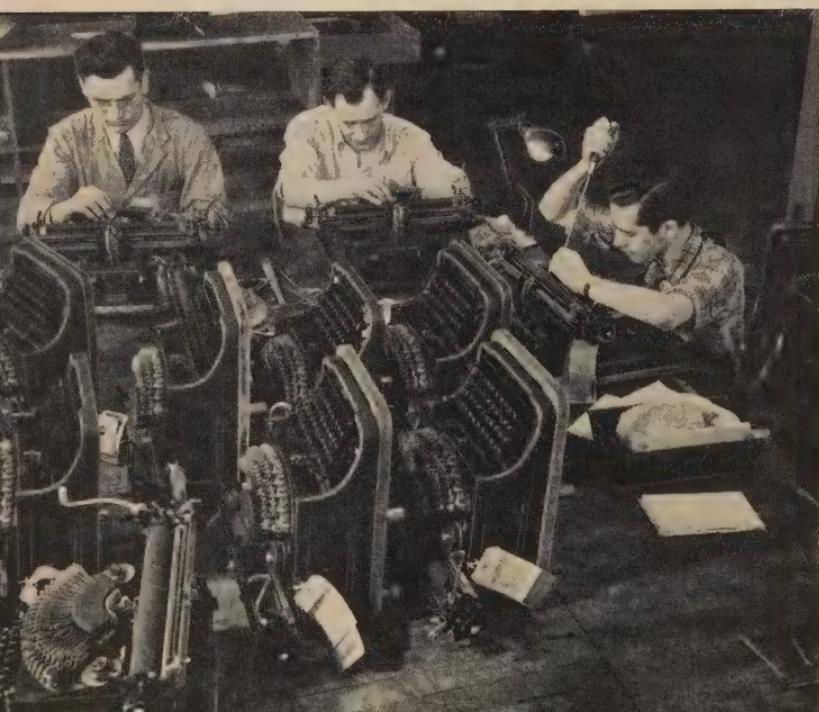
organics. The gain for paints from December, 1946, to December, 1947, was 37 p.c. and for fertilizers it was 23 p.c., while for inorganic chemicals it was less than 2 p.c.

Activity in the chemical industries lagged slightly behind other manufacturers in 1947. On a volume basis, the index of production for all manufacturers was 187·1, which was 10·7 p.c. greater than in 1946, while the index for chemicals stood at 175·7, or 6·3 p.c. over the previous year. On the basis of employment, the index for manufacturers in general averaged 199·0 and for chemicals 330·3, gains of 7 p.c. and 2 p.c., respectively, compared with 1946.

In 1947, there were about 1,000 establishments making chemicals and allied products and a monthly average of 37,000 workers were employed. About \$194,000,000 were expended by the industry during the year for materials for manufacturing, \$16,000,000 for fuel and power, and \$76,000,000 for labour. The 522 works in Ontario accounted for 55 p.c. of the production, and the 320 establishments in Quebec accounted for 33 p.c. At the year-end a number of important chemical works were under construction including three large caustic soda-chlorine works at Beauharnois, Que., Arvida, Que., and Sarnia, Ont., and a large ethylene glycol plant also at Sarnia.

### *Leading Individual Industries*

The extraordinary demand for war equipment and food resulted in a rearrangement in the ranking of many industries during the war years. Such industries as miscellaneous chemicals, shipbuilding, iron and steel and aircraft moved up near the top of the list during 1942-44, while pulp and paper, in second place after non-ferrous metal smelting and refining up to 1941, stood in third place in 1942, seventh place in 1943 and fifth place in 1944. Slaughtering and meat packing displaced non-ferrous metal smelting in first place in 1944. In 1946 pulp and paper again moved up to first place, a position it had not occupied since 1933. Slaughtering and meat packing dropped to



*Final inspection of noiseless machines produced in an Ontario type-writer plant.*

*Ice-cream machine in operation in a city dairy. This machine turns out 4,840 individual rolls of ice cream a day.*



second place, and non-ferrous metal smelting and refining remained in third place. Miscellaneous chemicals which stood in third place in 1944 did not rank among the leading industries in 1946.

#### *Principal Statistics of Fifteen Leading Industries, 1946*

Industry	Estab-	Employees	Salaries	Cost	Net	Gross
	lish-		and	of	Value	Value
	No.	No.	\$'000	\$'000	\$'000	\$'000
Pulp and paper.....	113	44,967	101,365	223,448	258,165	527,815
Slaughtering and meat packing.....	147	22,536	40,313	408,033	64,869	475,953
Non-ferrous metal smelting and refining.....	15	14,546	30,648	212,865	69,566	304,718
Sawmills.....	6,001	49,352	63,811	156,108	129,408	287,910
Flour and feed mills.....	974	8,036	12,898	224,234	34,191	260,659
Butter and cheese.....	2,161	19,659	28,668	177,638	52,761	234,664
Electrical apparatus and supplies.....	266	43,998	74,511	101,939	129,969	234,573
Petroleum products.....	43	7,145	14,849	155,819	57,448	223,425
Automobiles.....	9	21,647	43,969	135,556	55,914	193,440
Clothing, women's factory.....	1,108	29,963	44,985	91,138	82,819	174,353
Railway rolling-stock.....	37	28,553	57,816	83,937	74,655	162,160
Rubber goods.....	60	22,055	37,813	62,136	93,451	159,408
Primary iron and steel.....	59	24,196	50,516	68,468	71,582	153,083
Clothing, men's factory	537	27,822	38,115	83,034	69,220	152,707
Bread and other bakery products.....	2,864	30,453	42,987	70,887	72,981	148,363
<b>Totals, Fifteen Leading Industries—</b>						
1946.....	14,394	394,928	683,264	2,255,240	1,316,999	3,693,231
1945.....	9,650	418,314	773,180	2,251,250	1,441,228	3,815,644
<b>Grand Totals, All Industries—</b>						
1946.....	31,249	1,058,156	1,740,687	4,358,234	3,467,004	8,035,692
1945.....	29,050	1,119,372	1,845,773	4,473,668	3,564,315	8,250,368
Percentages of Fifteen Leading Industries to All Industries, 1946..	46.1	37.3	39.3	51.7	37.9	45.9

## Manufacturing Industries in Urban Centres

The prosperity of most of the cities and towns of Canada, especially in the east, is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully occupied population. In the west the cities are more largely distributing centres, though manufactures are rapidly increasing there also.

The extent to which the manufacturing industries of Canada are concentrated in urban centres is indicated by the fact that in Ontario 93.6 p.c. of the gross manufacturing production of the Province in 1946 was contributed by cities and towns having a gross production of over \$1,000,000 each. In Quebec the percentage was 92.2, while in the Maritime Provinces and British Columbia, where sawmilling, fish-packing and dairying are leading industries, the proportions fell to 67.1 and 66.1 p.c., respectively. In the Prairie Provinces the leading industries are based on the agricultural resources—grain-growing, cattle-raising and dairying—and to a lesser extent on industries providing for the more necessary needs of the resident population. But even so, the urban concentration of industry is high, especially in Manitoba, the percentages being: Manitoba, 88.7; Saskatchewan, 78.0; and Alberta, 84.5.

### *Urban Centres with Gross Manufacturing Production of Over \$35,000,000 in 1946*

NOTE.—Arvida, Que., and Copper Cliff, Ont., are not included, as statistics for centres with three or more establishments cannot be published when one establishment has 75 p.c. or two establishments 90 p.c. of the total production.

Urban Centre	Establishments	Employees	Salaries	Cost of	Cost	Gross
			and Wages	Fuel and Electricity	of Materials	Value of Production <sup>1</sup>
	No.	No.	\$'000	\$'000	\$'000	\$'000
Montreal, Que.....	3,785	173,507	291,382	14,740	602,668	1,147,945
Toronto, Ont.....	3,632	145,556	247,298	12,239	549,257	1,036,940
Hamilton, Ont.....	501	45,951	80,959	10,435	150,978	308,033
Vancouver, B.C.....	1,071	31,408	55,961	3,075	138,045	270,165
Windsor, Ont.....	256	30,889	60,315	3,749	138,789	244,925
Winnipeg, Man.....	756	26,730	42,355	2,625	121,531	206,381
Montreal East, Que.....	19	3,310	6,316	4,910	87,019	119,265
Kitchener, Ont.....	175	13,494	21,984	1,105	50,132	94,731
Calgary, Alta.....	237	7,252	12,396	1,782	60,354	93,438
London, Ont.....	262	14,363	23,294	1,277	41,367	90,645
Port Colborne, Ont.....	20	2,494	4,757	1,831	61,347	89,690
Sarnia, Ont.....	44	6,377	12,682	5,300	49,122	89,099
Edmonton, Alta.....	217	7,555	12,492	743	62,053	88,866
St. Boniface, Man.....	58	3,845	6,875	547	63,167	79,929
Peterborough, Ont.....	87	9,422	15,744	894	47,563	79,165
Quebec, Que.....	354	12,632	17,321	2,506	42,162	79,105
Brantford, Ont.....	129	12,335	21,557	1,124	31,161	67,917
New Toronto, Ont.....	27	6,073	11,927	966	33,373	67,274
Three Rivers, Que.....	78	6,937	11,911	4,986	29,225	63,281
Oshawa, Ont.....	54	7,245	14,219	860	39,746	62,343
Niagara Falls, Ont.....	68	6,384	11,929	4,449	21,572	56,206
Ottawa, Ont.....	206	9,491	15,629	1,153	22,945	53,313
Welland, Ont.....	52	7,199	13,427	2,896	22,174	52,174
New Westminster, B.C.....	107	5,475	9,637	622	25,640	50,476
Sault Ste. Marie, Ont.....	47	5,078	10,582	3,571	26,415	49,637
St. Catharines, Ont.....	98	9,038	15,829	935	22,544	49,583
Shawinigan Falls, Que.....	40	4,726	9,177,858	4,273,662	17,478,687	47,337,924
Saint John, N.B.....	114	4,084	6,192	827	31,256	43,181
Sherbrooke, Que.....	95	8,038	11,825	787	19,606	42,192
Leaside, Ont.....	49	5,712	10,732	439	19,011	39,628
Halifax, N.S.....	111	6,588	10,978	566	18,971	39,372
Saskatoon, Sask.....	88	2,604	4,120	459	29,817	38,355
Kingston, Ont.....	52	5,286	9,113	850	15,454	37,196
Regina, Sask.....	114	2,914	4,839	922	22,038	35,980
Lachine, Que.....	47	7,029	13,730	765	13,228	35,658

<sup>1</sup> Net value is derived from gross value by deducting cost of materials, fuel and electricity.

## *Employment in Manufactures*

The Dominion Bureau of Statistics conducts monthly surveys of employment, payrolls and man-hours in manufacturing, as well as in the major non-manufacturing industries. The surveys are in the main limited to firms usually employing 15 persons or over. In view of the large-scale operations in many factories, the coverage of total employment in manufacturing in the monthly surveys is particularly high.

The index number of employment in manufacturing (1926 average as 100) in the first nine months of 1948 averaged 203.7, as compared with 197.1 in the same period in 1947. This increase of 3.3 p.c. was substantially less than that indicated in the first three-quarters of 1947 over 1946, implying some levelling off in the rate of post-war expansion. It is also interesting to note that the advance in the index number of factory employment in the period under review as compared with a year earlier was decidedly less than the increase of 5.7 p.c. recorded in the same comparison in the index number of employment in the non-manufacturing industries taken as a unit.

The losses in employment occasioned by industrial disputes in 1948 were substantially less than in 1947 or 1946; earlier shortages of labour and materials which had seriously affected the situation in certain industries were largely overcome, while public demand for commodities continued in great volume in spite of rising prices. As a result of these favourable factors, production in 1948 was generally maintained at a high level. The trend of factory employment was downward on three monthly occasions in the period under review, namely at Jan. 1, May 1 and Aug. 1, but from the opening of the year to Sept. 1, there was a rise of 4.8 p.c. in the general index number in manufacturing.

Within the manufacturing group, especially marked improvement in the year was indicated in the edible animal, pulp and paper, textile,

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*Technicians examine the mirror-smooth glass lining of a large tank produced for industrial service.*



electric light and power, and iron and steel industries. There were declines in employment in lumber and rubber products. In all provinces, the index numbers for manufacturing at Sept. 1, 1948, were higher than at Sept. 1, 1947. The percentage gains were particularly large in Manitoba and Alberta. With the exception of a slight decline in Montreal, improvement was indicated in the first nine months of 1948 in each of the leading cities.

At Sept. 1, 1948, the women employees reported by the co-operating manufacturing establishments showed a gain of 1·4 p.c. as compared with a year earlier. The number of men reported in the same period increased by 2·1 p.c. The variation in these rates of increase changed only slightly the proportion of women workers employed in manufacturing; thus their ratio per 1,000 employees reported at Sept. 1, 1948, was 222 as compared with 223 per 1,000 workers at the same date in 1947. These proportions, however, were considerably below that of 236 women per 1,000 employees as at Sept. 1, 1946.

As has been the case in the earlier post-war years, the index of aggregate payrolls in manufacturing in the nine-month period ended Sept. 1, 1948, has followed the same general trend as that of employment. The increase in the former, however, was relatively greater than that in the employment index, as wage revisions and cost-of-living bonuses continued to be factors of

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*Production line in a shoe factory where rubber-soled canvas play-shoes are made.*



**Small fur skins are blocked before being cut and made up into fur coats.**



major importance. In the period ended Sept. 1, 1948, the payrolls index rose by 19.5 p.c., a ratio which greatly exceeded that of 4.8 p.c. recorded in employment. In the same months of 1947, an increase of 22.5 p.c. in payrolls and 6.7 p.c. in employment had been indicated. The weekly earnings of salaried employees and wage-earners on the staffs of the co-operating manufacturers at Sept. 1, 1948, averaged \$41.47, compared with \$37.16 at Sept. 1, 1947, and \$32.71 at Sept. 1, 1946. The average hours worked by hourly rated employees in manufacturing were given as 41.6 at Sept. 1, 1948, compared with 42.3 hours at Sept. 1, 1947, while the average hourly earnings rose from 82.2 cents a year earlier, to 93.6 cents at the beginning of September, 1948.

#### *Monthly Indexes of Employment in Manufactures, 1943-48*

(1926=100)

Month	1943	1944	1945	1946	1947	1948
Jan. 1.....	219.6	226.4	212.7	179.9	190.6	199.9
Feb. 1.....	222.1	227.3	215.0	182.8	193.9	200.7
Mar. 1.....	223.4	226.5	214.3	182.6	194.5	202.6
Apr. 1.....	224.1	225.5	212.9	184.9	195.2	202.0
May. 1.....	222.9	223.2	210.6	186.2	195.8	201.8
June 1.....	224.1	223.1	209.0	184.7	197.6	203.6
July 1.....	226.5	225.8	207.2	187.2	200.6	207.2
Aug. 1.....	227.7	225.0	204.1	184.2	202.5	206.5
Sept. 1.....	229.9	226.2	198.6	187.2	203.3	209.5
Oct. 1.....	231.4	223.7	188.3	188.4	203.6	210.0
Nov. 1.....	230.8	221.3	186.3	192.8	205.1	208.1 <sup>1</sup>
Dec. 1.....	230.9	220.1	184.2	194.2	205.1	—

<sup>1</sup> Preliminary.



# Transportation Communications

IMPROVED and ever-expanding means of transportation by land, air and water have characterized the development of the distributive agencies of Canada's economy. Indeed, in some aspects of this advance, such as the transport of freight by air in the northwest, Canada has pioneered. The following treatment shows that the country is abreast of the times not only in transportation but also in the means whereby distributive facilities are made more efficient.

## *Steam Railways*

It would be difficult to over-estimate the importance of the railways in the building of Canada. To-day, with its relatively small population distributed mainly in the southern portion of a vast area 4,000 miles in breadth and engaged in extensive external and internal trade relations, a large and efficient transportation system is a necessity.

One of the first great undertakings to engage the attention of the Dominion of Canada after Confederation in 1867 was the building of a transcontinental railway to link the east and west. Surmounting tremendous difficulties, the Canadian Pacific Railway was completed in 1885 and the vast hinterland of the Canadian west was opened for settlement. The wheat boom during the period 1900-13 brought prosperity and rapid economic expansion and precipitated another era of railway development. Two other transcontinental systems, the Canadian Northern and the Grand Trunk Pacific (with the government-built National Transcontinental) were built, and total Canadian railway mileage increased from 18,140 in 1901 to 30,795 in 1914.

Construction continued in the war years and during 1914-18 nearly 7,500 miles of railway were opened to traffic, bringing the total up to 38,252 miles. Much of the financing of the Canadian Northern and Grand Trunk Pacific lines was aided by the Federal and Provincial Governments guaranteeing the interest and principal of their debentures. Immigration was stopped by the War, traffic in the Western Provinces did not develop as anticipated, and these two railways and the Grand Trunk Railway, which was constructing the Grand Trunk Pacific, soon were unable to meet their interest payments. A commission was appointed on the advice of which the Federal Government took over these railways and amalgamated them with the Government-owned railways, some of which had been constructed as a pact of Confederation. The resulting Canadian National Railways had a total mileage in 1923 of 21,805 miles, including mileage of the Grand Trunk lines in the United States; this mileage had grown to 23,473 by the end of 1947.

The Provincial Government of British Columbia also took over a bankrupt railway (348 miles) and the Canadian National and Canadian Pacific jointly took over the Northern Alberta Railway (923 miles), which had been under private ownership but was unable to continue operations. The Province of Ontario built and operated a railway (574 miles) primarily for colonization purposes. Thus the publicly operated railways in Canada are a combination



Railway motive power entered a new phase in 1948 when two powerful diesel-electric road locomotives were placed in freight service over Canadian National lines between Montreal and Toronto.

of lines, some of which were constructed for political reasons or colonization purposes and some taken over from private companies faced with bankruptcy.

As a group these railways have not been prosperous: the Canadian National Railways earned a surplus only in 1926 and 1928, and in the five war years 1941-45, inclusive. During the period 1923-47 the net result was a cash deficit of \$486,264,895 exclusive of capital losses and interest on advances by the Federal Government to meet operating deficits.

With the outbreak of the Second World War, industrial production increased rapidly and freight traffic of the railways showed corresponding increases. Passenger traffic showed even larger increases. The table on p. 181 shows railway data for 1928, the pre-war peak year; 1933, the lowest of the depression years; 1938, the last full year before the War; and 1942-47, years affected by war and post-war conditions. Since the end of the War, passenger traffic has declined steadily, due mainly to the influence of the motor-bus and private automobile which have been unrestricted since 1945 by gasoline and tire shortages, although new motor-vehicles are still insufficient to meet the demand.

As the railways are public utilities enjoying certain exclusive operating rights, an authority has been set up to control freight and passenger rates as well as other matters relating to construction, operation and safety of railways. This control rests with the Board of Transport Commissioners.



*Trolley-buses and street cars travel side by side in the downtown district of Edmonton, Alta.*

#### **Summary Statistics of Canadian Railways, 1928, 1933, 1938 and 1942-47**

Year	Freight Carried One Mile	Passengers Carried <sup>1</sup>	Em- ployees	Gross Operating Revenues	Operating Expenses
	Tons	No.	No.	\$	\$
1928.....	41,610,660,776	40,592,792	187,710	563,732,260	442,701,270
1933.....	21,092,594,200	19,172,193	121,923	270,278,276	233,133,108
1938.....	26,834,696,695	20,911,196	127,747	336,833,400	295,705,638
1942.....	56,153,953,000	47,596,602	157,740	663,610,570	485,783,584
1943.....	63,915,074,000	57,175,840	169,663	778,914,565	560,597,204
1944.....	65,928,078,992	60,335,950	175,095	796,636,786	634,774,021
1945.....	63,349,094,918	53,407,845	180,603	774,971,360	631,497,562
1946.....	55,310,257,842	43,405,177	180,383	718,510,764	623,529,472
1947.....	60,143,034,978	40,941,387	184,415	785,177,920	690,821,047

<sup>1</sup> Duplications included.

#### **Electric Railways**

Widespread changes in urban transport systems have been taking place in recent years. Electric street railways, at one time the sole type of conveyance, have been replaced or supplemented in many Canadian cities by the motor-bus and the trolley-bus, while a large number of interurban electric lines have been abandoned. At the end of 1947, electric cars were in operation

in 19 Canadian cities, compared with 43 in 1926. In many cases, the same transportation company has remained in operation, using motor-buses instead of electric cars, but in a considerable number of cities in Ontario and Western Canada the transportation services are owned and operated by the municipalities. Windsor is at present the largest city where buses, exclusively, are operated. Trolley-buses are in use in Montreal, Toronto, Kitchener, Winnipeg, Calgary, Edmonton, Regina, Fort William and Port Arthur.

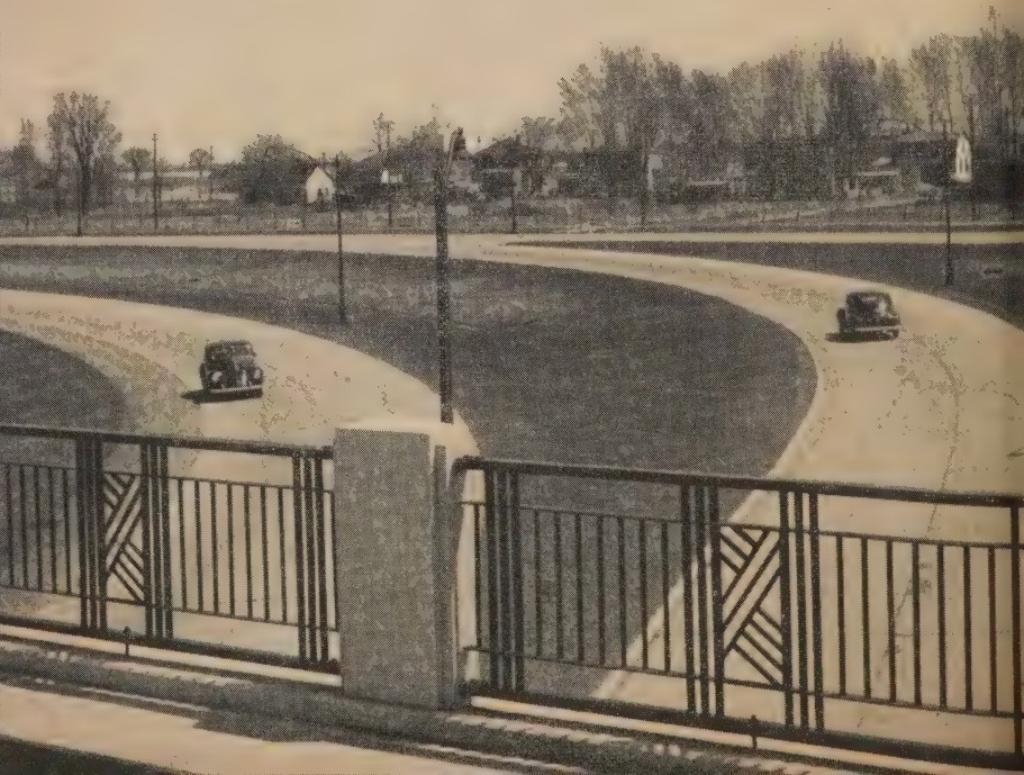
Equipment owned by companies or municipalities operating electric railways in 1946 included 3,510 electric passenger cars, 1,491 buses and 77 trolley-buses. Passengers carried by these vehicles reached an all-time high in that year, numbering 1,344,916,773, an increase of 2·2 p.c. over 1945. Electric cars carried 80 p.c. of the traffic, motor-buses 18 p.c. and trolley-buses 2 p.c.

### Roads and Highways

The rapid increase in the percentage of motor-car owners to population created a demand for improved roads that has become more and more insistent during the past 30 years. Furthermore, the advantages to be gained by attracting motoring visitors have been a powerful incentive to governing bodies to improve roads and scenic highways within their jurisdictions.

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*Part of No. 2 Highway cloverleaf at Bout de l'Île, on the eastern tip of Montreal Island.*



Also the widespread rural ownership of automobiles and trucks has brought about improvement of secondary rural roads. There are great stretches of country in the northern portions of Quebec, Ontario, the Prairie Provinces and British Columbia with very few people and very few roads, but the southern portions are well supplied.

At the end of 1946 there were in Canada 140,049 miles of surfaced road and 412,914 miles of non-surfaced road. Of the surfaced road, 121,813 miles were gravel, 15,629 miles were bituminous surfaced and 2,485 miles concrete. All roads, except those in the Territories and the National Parks which are the responsibility of the Federal Government, are under the jurisdiction of provincial and municipal authorities.

The expenditures for 1946 on construction and maintenance of roads and bridges amounted to \$144,469,194.

### *Motor-Vehicles*

There were more motor-vehicles registered in Canada in 1947 than in any other year. The number was 1,835,959, of which 1,370,173 were passenger cars and 439,657 commercial vehicles, including 425,803 trucks, 6,826 buses and 7,028 miscellaneous vehicles. Motorcycle registrations showed a decided increase over 1946, being 26,129 as against 17,163 in the previous year. The apparent supply of new passenger automobiles, which amounted to only 2,099 in 1945, increased to 82,137 in 1946 and 163,787 in 1947.

Provincial revenues from motor-vehicle registrations and licences amounted to a high of \$46,013,000 in 1947, and gasoline tax revenues, provincial and federal, amounted to \$119,668,000.

### *Motor-Vehicles Registered, 1939-47*

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
1939....	8,040	53,008	38,116	213,148	682,891	88,864	119,018	113,702	122,087	1,439,245
1940....	8,070	57,873	39,000	225,152	703,872	90,932	126,970	120,514	128,044	1,500,829
1941....	8,015	62,805	41,450	232,149	739,194	96,573	131,545	126,127	134,499	1,572,784
1942....	7,537	58,872	37,758	222,622	715,380	93,147	130,040	125,482	132,893	1,524,153
1943....	8,032	59,194	40,205	222,676	691,615	93,494	133,839	127,559	134,691	1,511,845
1944....	8,412	57,933	39,570	224,042	675,057	93,297	140,992	127,416	135,090	1,502,567
1945....	8,835	56,699	41,577	228,681	662,719	92,758	140,257	130,153	134,788	1,497,081
1946....	9,192	62,660	44,654	255,172	711,106	101,090	148,206	138,868	150,234	1,622,463
1947....	9,948	70,300	51,589	296,547	800,058	112,149	158,512	155,386	179,684	1,835,959

<sup>1</sup> Includes registrations in Yukon and the Northwest Territories.

**Motor-Carriers.**—Motor-buses and motor-trucks have increased steadily in importance in the transportation field, providing as they do freight and passenger service between numerous localities, both with and without railway facilities. During the war years rationing of gasoline, tires and motor-vehicles restricted the service considerably. The heavy short-haul traffic of employees to and from munition factories, air fields, etc., obscured, in the statistics, the curtailment in interurban traffic, but in 1946, when buses began to be more plentiful and rationing was abandoned, vehicle-mileage of inter-city and rural transit systems showed a decided increase over 1945 mileage, while the number of passengers increased 8.9 p.c. The trend continued upward in 1947.

## Statistics of Motor-Carriers, 1943-46

Item	1943	1944	1945	1946
Investments in land, buildings and equipment..... \$	49,940,584	54,186,461	59,400,753	72,725,752
Revenues..... \$	76,020,555	81,707,604	88,157,490	102,241,162
Equipment—				
Trucks..... No.	7,037	6,772	6,486	6,652
Tractor, semi-trailers..... "	2,069	2,063	2,063	2,387
Trailers..... "	974	1,103	1,154	1,368
Buses..... "	2,992	3,104	3,322	3,824
Passengers carried..... "	221,012,000	234,809,000	239,858,000	261,041,676
Freight, inter-city and rural, ton	11,144,000	9,605,000	10,854,000	11,944,384

## Shipping

Canadian shipping is divided into two classes: (1) foreign service, and (2) coasting service. The first is subdivided into: (a) seagoing, i.e., between Canadian ports on the Pacific and Atlantic Oceans and on the St. Lawrence up to Montreal, and ports in other countries, including fishing at sea; and (b) inland, i.e., between Canadian and United States ports on the Great Lakes and connecting rivers. The second is service between Canadian ports, including fishing in Canadian waters.

Shipping statistics are collected only from ports at which there is an official of the Customs and Excise Division of the National Revenue Department, and consequently do not include shipping on the Mackenzie River, Lake Winnipeg, etc.

## Vessels Entered at Canadian Ports, 1939-47

Year	Foreign Service <sup>1</sup>		Coasting Service		Totals	
	No.	Tons Register	No.	Tons Register	No.	Tons Register
1939 <sup>2</sup> .....	43,601	44,775,116	73,386	45,386,457	116,987	90,161,573
1940 <sup>2</sup> .....	46,241	46,666,396	78,212	44,361,232	124,453	91,027,628
1941 <sup>2</sup> .....	25,122	32,579,900	79,951	50,471,166	105,073	83,051,066
1941 <sup>3</sup> .....	26,203	31,452,400	77,592	48,111,082	103,795	79,563,482
1942 <sup>3</sup> .....	24,066	25,640,763	73,366	43,990,764	97,432	69,631,527
1943 <sup>3</sup> .....	22,901	26,345,562	65,066	40,300,778	87,967	66,646,340
1944 <sup>3</sup> .....	23,786	28,356,681	64,999	43,776,497	88,785	72,133,178
1945 <sup>3</sup> .....	24,431	29,655,984	65,410	48,098,201	89,841	77,754,185
1946 <sup>3</sup> .....	26,461	30,367,071	67,014	45,559,014	93,475	75,926,085
1947 <sup>3</sup> .....	27,868	35,926,095	73,439	51,823,502	101,307	87,749,597

<sup>1</sup> Sea-going and inland international.

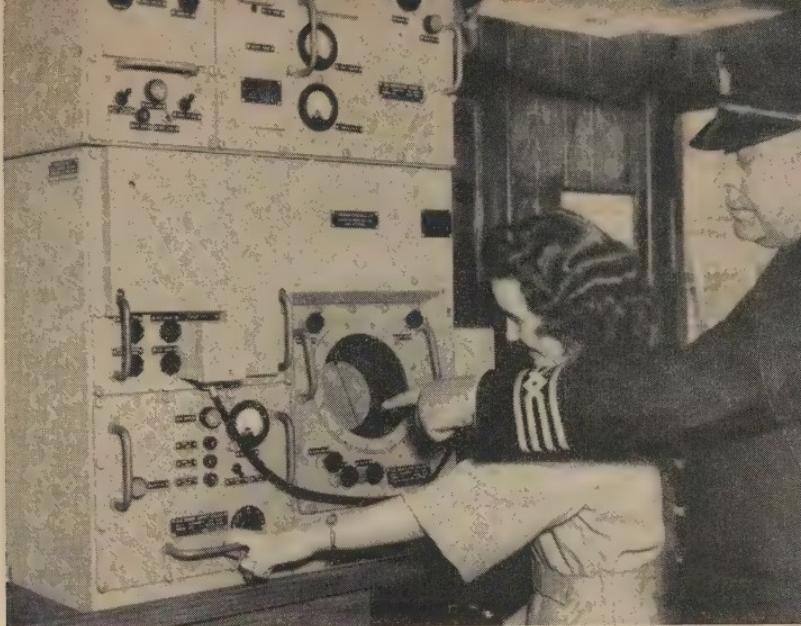
<sup>2</sup> Year ended May 31.

<sup>3</sup> Calendar year.

## Harbours

Facilities provided for the co-ordination of land and water transportation at Canada's many ports include docks and wharves, warehouses for general cargo, cold-storage warehouses, harbour railway and switching connections, grain elevators, coal bunkers, oil storage tanks and, in the chief harbours, dry-dock accommodation. Eight of the principal harbours—Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver and Churchill—are administered by the National Harbours Board, seven others by commissions that include municipal as well as Federal Government

Radar equipment on a Great Lakes freighter, a ship of the first lake fleet to be equipped with this modern safety and navigation aid.



appointees, and the remainder by harbour masters directly under the authority of the Department of Transport.

### Canals

There are six canal systems under the Department of Transport, namely: (1) between Fort William and Montreal, (2) from Montreal to the International Boundary near Lake Champlain, (3) from Montreal to Ottawa, (4) from Ottawa to Kingston, (5) from Trenton to Lake Huron, and (6) from the Atlantic Ocean to the Bras d'Or Lakes in Cape Breton. These canals have opened to navigation from the Atlantic about 1,875 miles of waterways. Under the Department of Public Works or other authority are minor canals and locks that facilitate local navigation.

An oil tanker, the largest ever built in a Canadian shipyard, takes to the water at Collingwood, Ont. This 6,500 ton ship, launched in June, 1948, is now in service on the Great Lakes.





*Lighted buoys are removed from the St. Lawrence River marking the end of the navigation season on Canada's inland waterways.*

The Great Lakes and St. Lawrence River form one of the busiest waterways in the world. More traffic passes up and down the Detroit River than any other waterway; in 1947 it reached a tonnage of 110,887,970. Though this was a considerable decrease from the peak year of 1942, high because of heavy war requirements of iron ore, it was a peacetime record.

### Civil Aviation

Canada is well supplied with airports and aerodromes scattered throughout the country and is in a position to meet the expansion of aviation that has resulted from war and post-war developments. The Department of Transport retained a certain number of the airports constructed for war purposes and others have been made available to municipalities for local use. The airports, airfields and anchorages in Canada are classified as follows:—

Canadian Pacific Airlines airports (land) and airfields.....	19
Canadian Pacific Airlines airports (water) and anchorages.....	32
Department of Mines and Resources airports (land) and airfields...	12
Department of Mines and Resources airports (water) and anchorages.	11
Department of Transport airports (land) and airfields.....	128
Municipal airports (land) and airfields.....	63
Municipal airports (water) and anchorages.....	4
Provincial air services airports (water) and anchorages.....	23
Royal Canadian Air Force airports (land) and airfields.....	38
Royal Canadian Air Force airports (water) and anchorages.....	8
United States Army Air Forces airports (land) and airfields.....	3
TOTAL.....	341

Private and commercial flying activities in 1948 were carried on at 35 active flying clubs, employing 105 aircraft. The clubs, members of the Royal Flying Clubs Association, represented a membership of 3,324. During

the year ended Mar. 31, 1948, 19,045 instructional flying hours were recorded by these clubs. In addition to the flying clubs organized on a non-profit basis, 80 commercial flying schools were in operation, employing 226 aircraft. Student pilots enrolled in flying clubs and commercial flying schools in the year ended Mar. 31, 1948, numbered 1,558. Certificates and licences in force at Jan. 1, 1947, and July 31, 1948, were:—

Type	In Force Jan. 1, 1947	In Force, July 31, 1948	Increase
Private air pilot . . . . .	1,123	2,119	996
Commercial and transport pilot.....	2,065	2,065	—
Airport traffic control officer.....	103	116	13
Air engineer.....	1,269	1,542	273
Registration of aircraft—			
Private.....	45	436	391
Commercial.....	866	1,547	681

**Government Air Policy.**—The Government's air policy, as outlined in 1943, stated that Trans-Canada Air Lines would "continue to operate all transcontinental systems and such other services of a mainline character as

*Parcels ready to be carried across the Atlantic to the United Kingdom in Trans-Canada Air Lines' North Star skyliners.*



may from time to time be designated by the Government" and that Trans-Canada was "the sole Canadian agency which may operate international air services". Secondary services would be left to private enterprise.

During 1948 this policy was amended and Canadian Pacific Airlines was designated to operate two Canadian trans-Pacific air services (*see p. 189*).

A new Government flying training scheme, to come into operation Jan. 1, 1949, will provide financial assistance to approved flying clubs or schools participating in student pilot training. This scheme, which provides a cash grant of \$100 to clubs or schools for each qualified pilot turned out, \$100 to each qualifying student, and an additional \$100 to those joining the R.C.A.F. reserve or auxiliary, will be administered by the Air Services Branch of the Department of Transport. It was inaugurated following the introduction of the high standard of pilot licensing laid down by the ICAO.

**Trans-Canada Air Lines.**—Incorporated in 1937, TCA now operates 16,000 miles of routes, flying to 40 communities in Canada, Newfoundland, the United States, the British Isles, Bermuda and the West Indies.

In 1948, the most significant TCA development was the introduction of 20 large North Star aircraft with which the Company gave service on an entirely new scale and of an improved quality. Travel times were reduced by this fast Canadian-built equipment, and seating capacity of the fleet was increased by 50 p.c. Approximately 20,000,000 revenue miles were flown—2,000,000 more than in 1947—and 5,000 miles were added to its routes, serving six more cities, at home and abroad, with Canadian air service.

TCA flew 50 p.c. more passenger miles than in 1947, and air cargo ton mileage increased by 110 p.c. Mail ton mileage, swelled by the new policy of carrying first class mail by air, exceeded the 1947 total by 67 p.c.

During 1948, the following new services were added by TCA: On May 1, two round trips were scheduled weekly from Toronto and Montreal to Bermuda, and later, a third flight was added; and on Dec. 2, service was inaugurated to the Caribbean from Montreal and Toronto to Nassau (Bahamas), Kingston (Jamaica), and Port-of-Spain (Trinidad), two flights weekly, one terminating at Jamaica, the other continuing to Trinidad.

In domestic service, TCA carried 537,000 passengers in 1948; 5,685,000 lb. of mail; and 3,722,000 lb. of cargo. The overseas flights accommodated 31,500 passengers, including 6,000 immigrants; 223,000 lb. of mail; and 667,000 lb. of cargo.

Pressurized North Star aircraft were utilized by TCA on the trans-Atlantic run, as well as transcontinental and international, as they became available in 1948, crossing the Atlantic 1,400 times in revenue service which made TCA one of the leading carriers on that important international route.

The Canadian Meteorological Service now has stations at both Gander, Newfoundland, and Goose Bay, Labrador, as well as at Montreal, which are largely for trans-Atlantic operations. The Dominion-wide radio range system extends from Montreal through intermediate points to both Goose Bay and Gander.

Flight equipment at the close of 1948 included 20 four-engined North Stars, 27 twin-engined DC-3's and 7 Lockheed Lodestars. However, almost all of the latter type, now too small for traffic requirements, have been retired from service.

*Galley of a trans-  
Atlantic North Star  
and two of the crew.  
High above the  
clouds, meals are  
served piping hot  
from special electric  
ovens.*



**Canadian Pacific Airlines.**—Canadian Pacific Airlines operate a widespread group of north-south schedules across Canada whose routes in 1948 totalled 9,671 miles. C.P.A. in 1942 consolidated into one organization a number of independent commercial operators that had been chiefly engaged in servicing the mining industry in northern Canada including Canadian Airways Limited, Arrow Airways Limited, Ginger Coote Airway, Prairie Airways, Mackenzie Air Services, Yukon Southern Air Transport Limited, Dominion Skyways Limited, Quebec Airways, Wings Limited, Starratt Airways and Transportation Company. In 1947, C.P.A. carried 10,817,971 lb. of cargo, 1,889,085 lb. of air mail and 124,720 passengers in 5,077,293 miles flown.

Canadian Pacific Airlines have been designated by the Canadian Government to operate two Canadian international air services in the Pacific region: Vancouver-Honolulu-Canton Island-Fiji-Sydney, 7,865 miles; and Vancouver-Kodiak-Shemya Island-Tokyo-Shanghai-Hong Kong, 6,555 miles. A branch service from Fiji will connect New Zealand with the through Sydney-Vancouver route. Negotiations between the Canadian Government and other countries in the Pacific region are being conducted to obtain the necessary traffic rights for the projected operations.

**Other Scheduled Services.**—Scheduled services between Charlottetown and Summerside, P.E.I., and Moncton, Fredericton and Saint John, N.B., and New Glasgow, Sydney and Halifax, N.S.; and between Charlottetown, P.E.I., and the Magdalen Islands, Que., are operated by the Maritime Central Airways Limited.

The Central Northern Airways Limited, operates scheduled services between Sioux Lookout, Gold Pines, Casummit, Root Portage and Swain Post in northwestern Ontario; between Lac du Bonnet, Bisset and Long Lake, Man., and Favourable Lake, Ont.; between Little Grand Rapids and Berens River, Man.; between Flin Flon, Man., and Pelican Narrows and Island Falls, Sask.; and between The Pas, Snow Lake and Sherridon, Man.

New air services to the Orient, and to Australia and New Zealand, will be inaugurated in mid-1949 by the Canadian Pacific Airlines, adding 14,420 route miles to Canadian-operated international air services. These routes, shown on the map, will be served by four pressurized Canadair Fours.



The Leavens Brothers Air Services Limited, maintains a scheduled service between Windsor and Pelee Island and between Leamington and Pelee Island in southern Ontario.

In the western coastal area scheduled services are operated between Vancouver, Powell River, Minstrel Island, Alert Bay and Sullivan Bay, and between Vancouver and Comox, B.C., by the Queen Charlotte Airlines Limited; and between Carcross, Yukon, and Atlin and Telegraph Creek, B.C., by the Northern Airways Limited.

**Non-Scheduled and Charter Operations.**—A large portion of commercial flying in Canada is made up of non-scheduled and charter operations and by July 31, 1948, some 300 licences had been issued to operators coming under this classification. Scheduled operations are, for the most part, confined to the populated and industrialized areas where air transport is an adjunct to other transportation facilities. In the great hinterland of Canada, the aircraft is the only means of rapid and safe long-distance travel.

The installation of air navigation aids along established air routes into the far north with terminals at Dawson in the Yukon; Aklavik at the mouth of the Mackenzie River; Coppermine on Coronation Gulf; and Goose Bay in Labrador, have facilitated the use of larger types of aircraft and have made both regular and charter carrier services faster and safer.

Revenue passengers carried by scheduled, non-scheduled and charter operators in the first four months of 1948 numbered 220,127 as compared with 191,422 in the same period of 1947; freight carried amounted to 10,773,143 lb. as compared with 10,147,782 lb. These figures do not include passengers and goods carried to and from foreign countries.

Five operating certificates have been issued to foreign scheduled services flying into Canada: four to United States air lines and one to the British Overseas Airways Corporation with its Canadian terminal at Montreal Airport, Dorval.

**International Civil Aviation Organization.**—In accordance with the provisions of the Interim Agreement, the first Interim Assembly of the Provisional International Civil Aviation Organization was convened at Montreal on May 21, 1946. At this meeting, Canada (Montreal) was chosen as the permanent seat of the organization. Since that meeting, the Interim Council and Air Navigation Committee have been in almost constant session.

Technical experts from member states were brought together at divisional and regional air navigation meetings for the purpose of preparing standards and procedures for the safe and efficient operation of international air service. These meetings prepared the ground for the first assembly of the International Civil Aviation Organization, which was convened at Montreal on May 6, 1947. The second assembly was held at Geneva on June 1, 1948.

The Canadian air regulations are being amended, where necessary, to conform with the International Civil Aviation Organization in all matters having a bearing on international aviation.

### *Telegraphs*

Six telegraph systems are operated in Canada, four in conjunction with the railways, one by the Federal Government and one small system that is



*Inspecting switches  
of the Edmonton  
telephone system.  
This system is city-  
owned.*

owned and operated independently. One United States company uses lines across Canadian territory; one private Canadian company operates a wireless system; and three cable companies, in addition to the telegraph companies, operate cables from Canadian stations. In all, there are 22 cables between Canada and England, Azores, Australia, New Zealand, Newfoundland, St. Pierre and Miquelon, and Bermuda, and two cables between North Sydney and Canso, N.S.

These systems have 396,492 miles of telegraph wire in Canada, 5,311 miles outside of Canada, and 32,813 nautical miles of submarine cable between Canada and other countries. Multiple circuits normally produce 914,853 miles of channels for telegraphic use. During 1947 a total of 18,987,774 telegrams and 1,613,621 cablegrams, excluding messages between foreign countries, were handled by these systems.

### *Telephones*

There were 3,114 telephone systems in Canada in 1946, with 6,770,137 miles of wire and 2,026,118 telephones. The estimated number of conversations during the year was 3,559,005,284 or 1,757 per telephone. The transfer from manually operated telephone switchboards to automatic has continued, although it has been somewhat restricted by scarcity of equipment since 1941. In 1946, 55 p.c. of all telephones were dial telephones; 94 p.c. of these were in urban centres of over 10,000 population, where they comprised 77 p.c. of the telephones in use.

### *Radio*

On Feb. 9, 1932, the Judicial Committee of the Imperial Privy Council, to whom the matter had been referred, ruled that the control and regulation of radio-communication rested within the jurisdiction of the Federal Parliament. The enactment of the Canadian Radio Broadcasting Act of 1932,

by which power was vested in the Canadian Radio Broadcasting Commission to control and regulate radio broadcasting in Canada, followed. At this time the Commission was without a transmission system of its own but proceeded to carry out its responsibilities under the Act in regard to the control of privately owned stations. The nucleus of a nationally owned system was secured in 1933 on the acquisition and operation by the Commission of three stations of the Canadian National Railways at Moncton, Ottawa and Vancouver. The present Canadian Broadcasting Corporation succeeded the Canadian Radio Broadcasting Commission in 1936.

The responsibilities of the CBC as laid down in the Canadian Broadcasting Act of 1936 are to formulate regulations controlling the establishment and operation of networks, the character of any and all programs broadcast in Canada and the proportion of time that may be devoted to advertising in broadcast programs. All radio stations in Canada come under the Department of Transport, Radio Division, for technical administration including frequency, operating power, etc., and are licensed by this authority.

At Dec. 1, 1948, there were operating in Canada 130 standard broadcast band stations, of which 14 were Canadian Broadcasting Corporation stations and 116 privately owned stations; also 33 short-wave stations, of which 25 were Canadian Broadcasting Corporation stations and eight privately owned stations. The number of radio receiving sets in Canada is probably not far below 3,000,000, or about one for every four persons in the population. Private receiving licences number about 1,944,000, many of which cover more than one set.

**Canadian Broadcasting Corporation.**—With the return to peacetime conditions, the Canadian Broadcasting Corporation has been able to resume work on its plans for national coverage which were determined in 1936. By September, 1948, two 50,000 watt stations in Alberta and Manitoba were on the air bringing, for the first time, regional service to those provinces; at the same time the power of CJBC, Toronto, the key station of the CBC's Dominion network, was increased to 50,000 watts while a power increase to 10,000 watts for CBJ, Chicoutimi, has brought improved CBC service to the Lake St. John region in Quebec. Seven of the CBC's 14 stations operate with 50,000 watts. Plans also call for the boosting in power to 50,000 watts of CBC stations CBM, Montreal, and CBR, Vancouver, and the establishment of an outlet for the publicly owned system at Windsor, Ont. CBI, Sydney, the CBC's new outlet for the Cape Breton area, commenced operating in November, 1948. These publicly owned stations, supplemented by privately owned affiliates, make CBC service available to over 90 p.c. of Canada's population.

The CBC has been active in the development of frequency modulation. It operates two FM stations at Montreal, and one each at Toronto, Vancouver and Ottawa and it expects to have an FM station operating at Winnipeg before long. The CBC has also been devoting much study to television, and plans to proceed with the development of that new medium in Canada just as soon as necessary financing can be arranged.

*Organization of the CBC.*—The Canadian Broadcasting Corporation is operated as a national public service. Policy is determined by a Board of

nine Governors who act as trustees of the national interest in broadcasting. The Governors are appointed by the Governor General in Council for three-year terms, and the Chairman is required to devote his full time to performance of his duties. They are chosen to give representation to the main geographical divisions of Canada and various facets of Canadian life. Direction of policy, day-to-day operations, and management of the system are the responsibility of the General Manager and Assistant General Manager. Revenue is derived from an annual licence fee of \$2.50 paid by listeners, and income from commercial operations.

As constituted under the Act, the CBC is designed to operate in the public interest. It is responsible to Parliament as a whole through a Minister of the Crown and from time to time the work of the Corporation is reviewed by a special Committee of the House of Commons.

*Operations.*—The CBC operates all radio networks in Canada; the Trans-Canada and Dominion Networks serve English-speaking listeners from coast to coast, and the French Network serves French-speaking listeners in the Province of Quebec. The Networks are made up from 14 CBC-owned and 85 privately owned stations located across Canada. The Trans-Canada has a maximum outlet of 39 stations; the Dominion a maximum of 44; and the French Network a maximum of 16. For occasional broadcasts of national interest the three networks are joined to form the National Network. In addition to these outlets, the CBC has pioneered in the development of low-powered repeater stations, which operate automatically with the Network, in remote areas of Canada. French-speaking listeners in northern Quebec and on the western prairies are served by short-wave stations, and another is used to reach listeners in the northern coastal regions and interior of British Columbia.

Short-wave receiving stations are maintained at Ottawa and Toronto, Ont., mainly for the reception of British Broadcasting Corporation transmissions. In order to improve reception from Australia and points in the Pacific area, a new short-wave receiving station is operated at Point Grey, near Vancouver, B.C.

*Program Service and Development.*—During the year ended Mar. 31, 1948, 60,714 programs were broadcast, taking up 18,234 hours of broadcast time, on the three CBC networks. Of the total hours, 82·3 p.c. were non-commercial service, an increase of 629 hours over the previous year. The CBC originated and produced 80·1 p.c. of all network broadcasts, private stations originated 2·9 p.c. and the remaining 17·0 p.c. were made up of exchange programs from the British Broadcasting Corporation and United States networks.

Light and semi-classical music occupied the greatest number of hours, followed in order by news, dramatic and feature productions, classical music, agricultural programs, informative talks, educational and religious programs. Children's programs, broadcasts of sports events and sports résumés took up the remaining network time, in that order.

Network broadcasting in Canada is made more complicated by the fact that the Dominion lies across five of the world's time zones. In order to bring news broadcasts and other programs to listeners in each of the time zones at suitable hours, CBC administrative, program and engineering headquarters and newsrooms are maintained at Halifax, Toronto, Winnipeg and

Vancouver. Decentralization also makes it possible for CBC producers to cater to varying tastes in the five regions, and to employ and develop local talent. The emphasis, however, is on national radio, with the objective of supplying a good balance of entertainment and information to a nationwide audience.

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*Radio transmitter at Hornby, Ont., which operates two 50,000 watt stations. For the first time on the North American Continent, two high-powered stations are being operated into one antenna. The studios for both stations are located at Toronto.*



On Dec. 3, 1947, an experiment was begun in radio on the North American Continent, with the inauguration of a series known as "CBC Wednesday Night"—a block of non-commercial programs broadcast for a full evening on the Trans-Canada Network, and produced primarily for the discriminating listener—programs that include good music interpreted by outstanding Canadian as well as internationally known artists, substantial radio dramas and stimulating talks and discussions.

*Educational Programs.*—A large portion of broadcast time is devoted to programs of an educational nature for both children and adults, in English and French. Each year the CBC presents a series of National School Broadcasts and co-operates with Provincial Departments of Education in broadcasting special programs related to the courses of study in provincial schools. School broadcasts on the CBC French Network are heard under the title "Radio-Collège". Programs of an educational nature for adults are presented in a wide variety of discussion-forums, commentaries, talks and semi-dramatized programs.

*CBC International Service.*—Since its inception in February, 1945, the CBC International Service has expanded until now the "Voice of Canada" is heard abroad in 11 languages. Built and operated on behalf of the Canadian Government, the transmitters of the International Service, located near Sackville, N.B., send out the strongest signal heard in Europe from North America. During the meetings of the General Assembly in New York, the United Nations continued to use the CBC transmitters for 90 minutes daily, directing reports to Czechoslovakia, Russia, Turkey, Norway, Switzerland, the Netherlands, Poland, France, Greece and Egypt.

Operations during the fiscal year ended Mar. 31, 1948, involved approximately 4,440 hours of broadcasting, including news, talks, music, interviews with foreign nationals visiting Canada as well as with Canadians who speak foreign languages, actualities, dramas, documentaries, international conference reports and commentaries, trade news and reviews, and special programs in honour of national holidays.

### *The Post Office*

During the year ended Mar. 31, 1948, mail volume again showed continuous expansion and gross postal revenue amounted to \$91,613,618 an increase of \$5,212,667 over the previous fiscal year. Money orders payable in Canada were issued to the value of \$359,633,658 and others payable abroad to the value of \$10,599,329. Post offices in operation on Mar. 31, 1948, numbered 11,982.

Extensive changes to increase efficiency were made in the organization of the Postal Service in 1947 and 1948. The position of District Director of Postal Service was discontinued, with the operating and secretarial features being taken care of by the Postmaster, and District Office functions relating to services and investigations being placed under the District Post Office Inspector. Five Regional Directors were appointed (direct representatives of the Deputy Postmaster in the field) and the country was divided into postal regions covering the Maritimes, Quebec, Ontario, the Prairies, and British Columbia and the Yukon.

During 1947 and 1948 letter-carrier delivery service was extended to many more urban centres. Mail services, including parcel post and money

order services, were improved with many overseas countries. Air-mail services, both domestic and foreign, were improved and Canada air-letter service was extended early in 1948 to nearly all countries receiving air-mail service. On July 1, 1948, the "Air Lift" mail service was established. Through this service all first-class letter mail weighing up to one ounce posted in Canada to Canadian addresses is transmitted by air whenever delivery to the addressee will be expedited.

The following statement shows miles flown with mail and weight of mail carried from 1939 to 1948:—

<i>Year ended Mar. 31—</i>	<i>Miles Flown</i>	<i>Mail Carried</i>	<i>Year ended Mar. 31—</i>	<i>Miles Flown</i>	<i>Mail Carried</i>
No.	lb.		No.	lb.	
1939.....	3,711,987	1,822,399	1944.....	12,799,218	7,220,554
1940.....	5,769,257	2,351,172	1945.....	13,581,053	8,224,230
1941.....	8,330,121	2,842,367	1946.....	15,215,816	7,473,152
1942.....	10,021,579	3,541,625	1947.....	20,104,976	5,626,241
1943.....	10,799,670	5,373,021	1948.....	21,999,523	5,958,556

Two special 4-cent stamps were issued in 1948, one on Feb. 15, to commemorate the marriage of H.R.H. the Princess Elizabeth, Duchess of Edinburgh, and H.R.H. Prince Philip, Duke of Edinburgh, and the other on Oct. 1 to mark one hundred years of responsible government in Canada.

Regular first-class mail in Canada is now carried by air. This "air lift" service was inaugurated on July 1, 1948.





Grain carrier passing through the Welland Canal at Port Colborne, Ont.

# Domestic Trade Prices and Price Control Cost of Living

**T**HE exchange within Canada of commodities produced from the mines, forests, rivers and seas, and processed in the factories, together with the related and personal services for which people pay, collectively come under the designation of domestic trade. This, together with prices and the cost of living, is a measure of the nation's internal economy.

## ★ Domestic Trade

The diverse resources of the various parts of the country have led to a vast exchange of products and the task of providing goods and services where they are required for consumption or use by a population of 12,883,000, very unequally distributed over half a continent, accounts for a greater expenditure of economic effort than that required for the prosecution of Canada's great volume of foreign trade, high though the Dominion ranks among the countries of the world in this field.

Domestic trade is broad and complicated, including as it does the transportation and distribution of goods within the country through the medium of railways, steamships, warehouses, wholesale and retail stores, and other agencies. It also includes all services such as those performed by doctors, hospitals, theatres, schools, banks, insurance companies, and innumerable others. All such activities, even if not productive of material goods, add substantially to the national income.

Unfortunately, owing to the many ramifications of domestic trade, its statistical measurement presents great difficulties. Nevertheless, some idea of its extent may be gathered from the fact that, in 1947, the national income arising from productive operations was estimated at \$13,375,000,000, while the value of domestic exports was \$2,775,000,000 in that year.

## Merchandising and Service Establishments

As the efficiency of distribution becomes a greater need in the economic system, more and more attention must be given to the basic data which are the foundation of the marketing structure of the Dominion. The basic figures, by country and urban area for each kind of establishment, can be derived only from the census. In 1930 and 1941 complete censuses were taken of merchandising establishments including retail, wholesale, service and repair establishments, and another is planned to cover the year 1951.

Distribution statistics in the intercensal periods are compiled from annual and monthly surveys which depend to some extent on modern sampling

methods. Each month thousands of retail and wholesale establishments, selected by rigorously tested sampling procedures, send in reports on their business. Surveys of other sectors of the distribution and service fields are taken quarterly or annually. Many of these are based on complete or near-complete coverage. By these series of continuously published statistics a link between the censuses is formed. This link has become stronger as the accuracy of methods has improved and as additional kinds of business are included in its scope.

**Wholesale Trade.**—The channels of distribution of goods are not clearly defined in the economy, and become more complex as producers assume more of the distributive functions and distributors take on certain productive functions. In some instances producers and processors actually carry on both functions in full, from production to the placing of the finished product before the consumer.

The 1941 Census of Merchandising divided the processes of distribution intermediary between producer and retailer into five major types of operation: wholesalers proper, manufacturers' sales branches and offices, petroleum bulk tank stations, agents and brokers, assemblers of primary products and other less important types of operation. The principal statistics derived from the 1941 Census of Merchandising on these businesses by types of operation are shown below.

#### *Wholesale Trade by Major Types of Operation, 1941*

Type of Operation	Estab- lishments	Sales	Em- ployees	Salaries and Wages
		No.	\$	No.
Wholesalers proper.....	9,417	2,358,475,300	74,800	117,389,500
Manufacturers' sales branches and offices.....	1,622	1,206,993,800	20,782	40,034,400
Petroleum bulk tank stations.....	3,973	216,292,300	4,968	6,890,400
Agents and brokers.....	2,106	907,520,300	4,423	8,677,100
Assemblers of primary products.....	7,366	453,300,500	10,499	13,356,000
Other types of operation.....	274	148,168,300	1,999	3,101,700
<b>Totals.....</b>	<b>24,758</b>	<b>5,290,750,500</b>	<b>117,471</b>	<b>189,449,100</b>

Current trends for wholesalers proper are available from a survey which has been in operation since 1935. Indexes of sales (on the base 1935-39 = 100) are calculated each month for nine wholesale trades, based on reports from over 400 firms whose sales made up about 68 p.c. of the total volume of business done by these trades in 1941. The nine kinds of wholesale businesses selected are the main wholesalers proper engaged principally in supplying retail merchants.

In 1947 the combined index for the nine trades covered rose 12 p.c. above 1946, and was 92 p.c. above the 1941 level. On the basis 1935-39 = 100, the index had reached 272·0, a figure which represents dollar sales uncorrected for price changes. The wholesale dry goods trade registered the greatest gain in 1947 over 1946, but had the lowest percentage increase when compared with 1941. Groceries and hardware wholesalers' sales gained 17 p.c. over 1946, and automotive equipment, 11 p.c. Smaller percentage gains were

to be found in the remaining trades with the exception of fruit and vegetable wholesale dealers whose sales fell back 6 p.c. from 1946 in which year the peak in sales trend, 122 p.c. above 1941, was reached.

In the first eight months of 1948 a considerable reduction in the upward movement of wholesale sales was notable. As compared with the same months of 1947, dollar sales of wholesalers advanced 4 p.c. The greatest gains were made by tobacco and confectionery and drug wholesalers whose dollar sales were up 12.5 and 12.2 p.c., respectively. The outstanding

*Freight trains carry large consignments of wheat to Canada's flour mills and leave laden with flour destined for home and world markets.*



movement in the 1948 period was the drop in sales of footwear, clothing, and automotive equipment which had advanced steadily since 1941. The recession in sales of fruit and vegetable wholesalers in 1947 from 1946 was intensified in the first eight months of 1948 when sales dropped 17 p.c. from the same period of 1947.

*Annual Indexes of Wholesale Sales, by Types of Business, 1941  
and 1944-48*

(1935-39 = 100)

Type of Business	1941	1944	1945	1946	1947	Jan. to Aug. 1948	P.C. Change 1947 from 1946	P.C. Change Jan.-Aug. 1948 from Jan.-Aug. 1947
Automotive equipment.....	157.8	197.2	242.8	334.0	369.8	352.7	+10.7	-0.5
Drugs.....	145.2	201.9	222.1	245.2	254.6	272.5	+3.8	+12.2
Clothing.....	142.8	183.1	186.3	229.3	255.4	250.0	+11.4	-2.1
Footwear.....	141.6	188.8	224.0	279.4	300.8	259.3	+7.7	-6.9
Dry goods.....	141.8	165.9	161.9	197.5	244.5	249.1	+23.8	+4.9
Fruits and vegetables.....	131.2	222.0	262.4	291.2	274.7	230.9	-5.7	-17.3
Groceries.....	134.7	169.3	180.2	208.9	244.2	247.6	+16.9	+8.4
Hardware.....	165.2	183.8	212.0	277.4	325.0	344.2	+17.2	+8.9
Tobacco and confectionery.....	150.6	230.1	258.1	296.9	317.1	342.8	+6.8	+12.5
<b>Totals, Wholesale Trade.....</b>	<b>142.0</b>	<b>186.0</b>	<b>205.4</b>	<b>244.0</b>	<b>272.0</b>	<b>272.4</b>	<b>+11.5</b>	<b>+4.2</b>

**Retail Trade—Sales Trends.**—Canada's retail trade in 1946 was estimated at \$5,506,286,000. With most wartime restrictions on production and distribution removed, high employment, rising wages and other favourable economic factors, retail sales topped the 1945 figure of \$4,595,667,000 by



*Farm produce being sold locally from a roadside stand.*

Terminal under construction by the Department of Transport at Borden, P.E.I., to accommodate the ferry "Abegweit" in service since 1947 between Prince Edward Island and New Brunswick. The wharf, which will be completed in 1949, is equipped with facilities for loading passenger and freight railway cars and automobiles for transfer to the mainland.



almost \$1,000,000,000. In terms of percentage gains, sales in 1946 were 20 p.c. above those for 1945 and 60 p.c. higher than in the latest census year 1941. From preliminary data it would appear that total sales reached about \$6,250,000,000 in 1947 or about 82 p.c. above 1941.

Since the end of the War one of the major developments in retail trading has been the rapid expansion in sales of durable goods. In short supply since 1941, sales of electrical appliances, radios, automobiles and, to some extent, furniture rose sharply in 1946 and early 1947 but had begun to show evidences of smaller gains in the latter part of 1947 and in 1948. This reduction in the increases in sales of durable goods outlets occurred as food store sales, heavily influenced by rising prices, began to mount sharply in the middle of 1947. The following table shows the relative expansion of sales from 1941 to 1945 and 1946 for major store groups.

#### *Retail Store Sales, by Kind-of-Business Groups, 1941, 1945 and 1946*

Group	1941		1945	1946	P.C. Change	
	Stores	Sales	Sales	Sales	1946 from 1941	1946 from 1945
	No.	\$'000	\$'000	\$'000		
Food.....	48,468	786,247	1,110,314	1,230,492	+56.5	+10.8
Country general.....	11,917	214,748	354,684	395,214	+84.0	+11.4
General merchandise.....	3,794	525,971	722,804	849,095	+61.4	+17.5
Automotive.....	16,867	594,720	424,301	720,064	+21.1	+69.7
Apparel.....	12,601	295,212	435,894	490,702	+66.2	+12.6
Building materials.....	5,801	174,203	281,418	367,659	+111.1	+30.6
Furniture-household-radio.....	3,498	118,357	123,520	182,242	+54.0	+47.5
Restaurants.....	8,821	131,181	210,465	222,885	+69.9	+5.9
Other retail stores.....	25,564	600,263	932,267	1,047,933	+74.6	+12.4
<b>Totals.....</b>	<b>137,331</b>	<b>3,440,902</b>	<b>4,595,667</b>	<b>5,506,286</b>	<b>+60.0</b>	<b>+19.8</b>

The most striking feature of the comparative sales figures for the years 1945 and 1946 is the 70 p.c. gain in the automotive group. Sales of the automotive group of retail stores made up over 17 p.c. of retail volume in 1941, fell to 8 p.c. in 1943, and had risen again to 13 p.c. by 1946. Some notion of the increase in 1947 over 1946 is given by the sales of motor-vehicles, the principal factor in this group of which sales amounted to \$416,237,495 in 1947 as compared to \$193,329,005 a year earlier.

Sales of food stores, which weight the total heavily, in 1946 rose 11 p.c. above 1945 and were 57 p.c. above 1941. All other trades recorded increases in sales volume ranging from 48 p.c. in stores dealing in household durables to 6 p.c. in restaurants.

Indexes of 14 kinds of retail business published monthly form the basis for more recent sales commentary. In 1947, the combined index rose 11 p.c. over 1946, with only jewellery stores receding from the sales level of the preceding year.

In the first eight months of 1948 the combined index gained 12 p.c. over the same period in 1947, the outstanding features being the small gains made by durable goods outlets and the upswing in food store sales. The general merchandise group, consisting of department, variety and country general stores, has held firm throughout 1947 and the part of 1948 for which figures are available.

If current increases are maintained for the remaining four months of the year, total sales volume in 1948 should approximate \$7,000,000,000.

**Retail Consumer Credit.**—The Bureau of Statistics has recently published for the first time current trends in retail consumer credit. Based on 1941 sales and accounts receivable, a series of indexes is available for the period July, 1945, to June, 1948, in half-year intervals. In the ten trades which make up the survey, cash sales made up 60·5 p.c. of total sales in the first half of 1948, as compared with 60·2 p.c. in 1941. From July, 1945, when 67·1 p.c. of sales were on a cash basis, the trend has been toward an increasing ratio of credit sales. In most trades there was a pronounced shift from instalment sales in 1941 to charge account sales in the 1945-48 period.

While sales had doubled from 1941 to the first half of 1948, accounts receivable had gained only 30 p.c. from Dec. 31, 1941, to June 30, 1948.

Consumer credit regulations administered by the Wartime Prices and Trade Board became effective on Oct. 14, 1941, and were maintained until Jan. 13, 1947. These controls seemed to help curb inflation and discourage the buying of goods in short supply by such technique as limiting repayment periods of accounts outstanding and setting minimum down payments on goods purchased on the instalment plan.

The activities of retail finance companies constitute another phase of consumer credit. The 1941 Census indicated that the financing of motor-vehicles made up 87 p.c. of the retail financing activities of the 90 finance companies in operation, the remaining 13 p.c. was made up of paper on household durables. Since 1935 automobile financing statistics have been kept on a current basis.

In 1947, 118,867 motor-vehicles were financed to an extent of \$108,744,758 as compared to 53,393 vehicles with financed value of \$41,586,565 in 1946. Of the 230,255 new motor-vehicles sold in 1947, 46,700 or 20·3 p.c. were

financed at an average value of \$1,401 per vehicle. These figures may be compared with 34·8 p.c. of new vehicles financed in 1941 at an average of \$850 indebtedness and 38·9 p.c. in 1937 with an average of \$723 financed value. Motor-vehicles may be financed by other means, such as bank or insurance loans, therefore the data cannot be regarded as totals of all automobile financing in Canada.

**Chain Stores.**—Chain store sales in 1946 amounted to \$1,170,029,000, a gain of 15 p.c. over 1945 when sales volume was \$1,014,847,000. Sales in the average of 6,653 chain store units made up 18·7 p.c. of all retail sales in Canada. Chain firms are those operating four or more stores under the same management and ownership, with the exception of department stores which are classified as independents regardless of the number of stores operated.

### Chain Store Statistics, 1930 and 1941-47

Year	Average Number of Stores	Retail Sales	Salaries to Store Employees	Stocks on Hand, End of Year		Accounts Outstanding, End of Year
				Stores	Warehouses	
1930.....	8,097	\$487,336	50,405	\$60,457	1	\$1
1941.....	7,622	639,210	57,777	68,619	20,976	38,376
1942.....	7,010	687,447	57,654	66,940	22,633	1
1943.....	6,780	703,950	58,804	67,628	22,603	15,527
1944.....	6,560	769,643	63,300	66,944	21,855	15,093
1945.....	6,580	876,209	68,196	68,247	29,013	16,369
1946.....	6,559	1,014,847	77,474	85,345	37,436	19,643
1947 <sup>2</sup> .....	6,653	1,170,029	90,072	102,974	43,495	30,796

<sup>1</sup> Not available.

<sup>2</sup> Preliminary.

A modern general store in a progressive industrial centre in British Columbia.



## *Co-operative Associations*

Co-operative associations in Canada are principally engaged in marketing farm products on behalf of their farmer-owners. During the 1946-47 crop year total business reported by 2,095 associations amounted to \$712,583,246 of which \$578,638,214 represented returns from the sale of farm products. Purchasing associations which provide supplies and goods to both urban and rural consumers reported sales of these commodities to the value of \$127,001,488. These three figures record the greatest dollar volume of sales ever achieved by co-operative marketing and purchasing associations in Canada.

Every type of farm product marketed co-operatively in Canada showed a substantial increase during 1946-47 with the exception of honey and wool. The latter decreased only slightly but honey producers suffered an almost complete crop failure and co-operative honey marketing was down by over 50 p.c. All provinces except New Brunswick contributed to the general increase in sales of farm products. Marketing co-operatives handled approximately 31 p.c. of the main farm products entering commercial trade channels in 1946-47 compared with 28 p.c. in 1945-46.

The associations also reported increases in total assets, plant value and members' equity. Total assets in 1946-47 amounted to \$168,000,000 and the value of plant less allowance for depreciation was reported as \$53,000,000. Members' equity, which includes paid-up capital and reserves as well as loans from members and surplus allocated to members, amounted to \$97,000,000 compared with total liabilities to the public of \$71,000,000.

**Co-operative Wholesaling.**—A large proportion of co-operatives are now purchasing their supplies from co-operative wholesales. There is at least one such organization in each province. Some sell only supplies to the member associations but others provide marketing facilities for farm products in addition to their wholesale supply business.

Eleven wholesale co-operatives reported sales of goods and supplies during 1946-47 amounting to just over \$40,000,000. Feed and fertilizer sales were about \$21,000,000. Farm products marketed by the wholesales amounted to \$43,900,000.

Most of these wholesales are members of National Co-operatives Incorporated in the United States from whom they purchase water heaters, radios, washing machines, milk coolers, electric fences, tires, batteries, etc. They are also members of Interprovincial Co-operatives Limited in Canada which acts as a central purchasing and distributing wholesale and has its headquarters at Winnipeg. For example, eastern consumers, both rural and urban, purchase "Co-op" labelled salmon from their local co-operative which has been ordered by Interprovincial Co-operatives from co-operative fishermen's associations on the West Coast.

**Credit Unions.**—The centenary of the establishment of the first workable system of co-operative credit occurred in 1948. In Canada, however, credit unions have been known only since 1900 when the first organization of this type in North America was set up at Lévis, Que.

In 1947 there were 2,546 credit unions in Canada with a membership of 775,129 and total assets amounting to \$220,500,000. Loans made during 1947 to members for provident and productive purposes amounted to \$80,210,032.



*Fleet of trucks operated by an eastern Ontario co-operative which provides its 1,800 members with farm supplies of all kinds.*

Credit unions in each province are joined together into provincial leagues or federations. Quebec has three, Ontario has three and New Brunswick has two. These leagues or federations are organized to provide services and supplies for the member credit unions and some also operate "loan departments" where the members may deposit surplus funds to be loaned to other credit unions or co-operative associations. Other provinces have central credit unions apart from the leagues. Quebec has eight such regional "caisses" which serve over 1,000 credit unions in that Province.

**Miscellaneous.**—Co-operative techniques and methods are being applied in Canada to such activities as life and fire insurance, telephone service, bonding, housing, medical services, transportation, room and board, garage and mechanical services, and funeral services.

Mutual fire insurance is one of the oldest forms of co-operation in Canada. At the end of 1946 there were 412 such companies in the Dominion with admitted assets of over \$20,000,000 and the reported net amount of insurance at risk was over \$1,500,000,000.

The Co-operative Life Insurance Company, with headquarters at Regina, Sask., operates in Ontario, Manitoba and Alberta as well as in Saskatchewan.

Canadian fishermen also co-operate to market fish and purchase gear and bait and other supplies. Value of fish marketed by 83 fishermen's co-operatives during 1946-47 was \$10,600,000. Membership in these co-operatives was estimated to be 10,826 and total assets were \$6,000,000.

## ★ Wholesale Prices

Commodity wholesale price levels continued to move sharply upward in 1948. The general wholesale price index (1926=100) had reached 157·8

by August, 1948, as compared with 130·8 for August, 1947, and 72·3 for August, 1939. Different price series used to represent wheat in the general wholesale and the Canadian farm product indexes account for much of the current disparity in these two series. The domestic price of No. 1 Northern, Fort William and Port Arthur cash basis, advanced from \$1.58½ to \$2.05 per bu. in August, 1948, whereas the initial payment plus participation payments received to date by farmers remained at \$1.55 on the same basis.

The index includes approximately 500 articles, each of which is priced at several sources. The articles are largely basic commodities, produced by Canadian farms, mines, forests, fisheries and manufacturing industries, although a considerable number of semi-manufactured and finished goods are also included. Weights used correspond to the importance in domestic markets of the various items marketed, whether they are imported, exported or for domestic consumption.

### *Monthly Index Numbers of General Wholesale Prices and Wholesale Prices of Canadian Farm Products, 1947 and 1948*

(1926=100)

Year and Month	General Wholesale Prices	Canadian Farm Products	Year and Month	General Wholesale Prices	Canadian Farm Products
<b>1939</b>					
August.....	72·3	58·4	November.....	142·5	132·7
			December.....	143·5	137·1
<b>1947</b>					
January.....	114·2	120·6	January.....	146·9	140·8
February.....	118·3	121·8	February.....	147·3	138·8
March.....	120·8	122·7	March.....	146·9	138·2
April.....	123·3	123·2	April.....	148·5	141·2
May.....	125·7	124·7	May.....	150·0	144·2
June.....	128·0	125·4	June.....	151·9	148·3
July.....	129·1	126·4	July.....	152·0	147·3
August.....	130·8	126·2	August.....	157·8	144·9
September.....	134·0	126·6	September.....	158·2	143·4
October.....	139·3	129·1	October.....	159·2	142·9
<b>1948<sup>1</sup></b>					

<sup>1</sup>Subject to revision.

### ★ Price Control

Under the general price ceiling established in December, 1941, and administered by the Wartime Prices and Trade Board, the prices of most goods, important services and rentals were frozen at the levels prevailing in the basic period Sept. 15-Oct. 11, 1941. As the stabilization program developed, standardized prices replaced individual basic-period price ceilings and a standard method of controlling price increases at distributive levels was evolved. For a wide range of commodities maximum wholesale and retail percentage mark-ups over costs were established. Rationing, allocation of materials, direction of production and other controls were also necessary accompaniments to price control. Higher costs of production, the inevitable result of the War, were to some extent offset by higher volumes of sales and various cost-reducing measures and were partly absorbed by producers, importers and distributors, but in some cases subsidies were paid or price increases were authorized.

**Decontrol.**—These price and related controls were temporary measures, to be relaxed and removed as promptly as the emergency conditions that brought them into being were alleviated and corrected. The most important steps toward decontrol and readjustment took place during 1947 with a few being removed in 1948. Canadian production had by that time reached very high levels and many shortages had been overcome and, though in certain cases decontrol was followed by price increases, it was felt that there was little justification for indefinitely prolonging the controls. By the end of October, 1947, the list of articles still under price ceilings had been reduced to a very small number of items. The principal commodities included sugar, molasses, dried raisins, currants and prunes (dried fruits were decontrolled on Dec. 31, 1947), wheat, the principal oil-bearing materials, the more important oils and fats, soaps, primary iron and steel products, and tin and alloys containing more than 95 p.c. tin. Tin itself was decontrolled in May, 1948, as were oils, fats, soaps and oil-bearing materials in August.

The payment of subsidies was almost completely terminated at the end of 1947, the only remaining item eligible at that time being oils and fats for the manufacture of soap and shortening. This too was withdrawn in August, 1948.

Among services, price control was retained on meals when supplied along with sleeping accommodation for a combined charge (except when supplied by employers to employees), on manufacturing processes performed on a custom or commission basis and entering into the production of goods still under price control, and on custom or commission packing charges for goods still under control.

The decontrol of commercial accommodation was completed on Mar. 8, 1948, when all remaining commercial regulations were withdrawn.

During 1948 a number of important steps were also taken in the direction of modifying or removing the controls that still remained on housing accommodation. The most important, dated Oct. 22, 1948, made provision for landlords who had obtained the 10 p.c. increase with a two-year lease as authorized in April, 1947, to obtain a further increase of 5 p.c. if they supplied heat. A landlord who had not taken advantage of the previously authorized 10 p.c. could obtain an increase of 10 p.c. in rental if the accommodation was not heated or 15 p.c. if heated. In neither case did the landlord have to give his tenant more than a monthly tenancy. Effective Nov. 1, 1948, all leases of housing accommodation made with a person not a tenant of such accommodation on that date were freed from control. At the same time a landlord who owned housing accommodation prior to Nov. 1, 1947, could give a six-month notice to vacate. Also a landlord, individual or institution, may apply under certain conditions for an order exempting a lease in order to obtain possession, the date of ownership being immaterial.

**Reinstatement of Controls.**—Events in late 1947 and early 1948 led to a return to price control on some items and transitional powers relating to prices and rents were extended by Parliament for a further period of one year to Mar. 31, 1949. The prohibition, or the imposition, of quota restrictions on the importation of fruits and vegetables on Nov. 18, 1947, was followed by a sharp price fluctuation that led to the imposition of ceilings on the more important canned fruits and vegetables as well as on fresh cabbages and carrots and to mark-up control on canned citrus fruit juices,

citrus fruits and grapes. Butter was brought back under ceiling in January, 1948, while action was taken to reduce certain fertilizer prices in February. Trade mark-ups were imposed on imported potatoes in May and on imported onions and apples in July. To prevent an increase in the price of flour and bread, consequent on a readjustment in the price of wheat, ceilings were reimposed on these commodities in August. By the end of October, 1948, the items still under price or mark-up control included: sugar; molasses; basic iron and steel products; the more important varieties of canned fruits and vegetables and canned citrus fruits; butter; grapes, oranges, grapefruit, lemons, limes and tangerines; cabbages, carrots, imported new potatoes, imported onions and imported apples; flour and bread.

On Aug. 1, 1948, the United Kingdom contract price for wheat advanced from \$1.50 per bu. to \$2.00 per bu. plus carrying charges, and provision was made for the producers to receive this same price on the domestic market. As a subsidy to consumers, in order to prevent increases in flour and bread prices, the Government undertook to refund to flour millers the difference between the new and former price on all wheat moving into domestic human consumption.

### ★ *Cost of Living*

The post-war rise in living costs continued into 1948. In March the Dominion Bureau of Statistics' cost-of-living index (1935-39 = 100) passed the July, 1920, peak level of 150·6, and by August, 1948, had reached 157·5. The nine-year increase since August, 1939, amounted to 56·3 p.c. This was due in large part to an advance of more than 100 p.c. in food prices.

The cost-of-living index budget does not represent a minimum standard of living; it is a budget based upon actual living expenditure records of typical wage-earner families. The index measures price changes only. Increases in quantities consumed are not taken into account. Items that have gone up a great deal in price, as have many articles of food and clothing, are averaged with articles that have not gone up so much, such as rent and electric light and carfare. But the correct amount of importance is given to each of these items. The weights to be attached to them were determined by a very careful study of urban wage-earner family expenditures, undertaken in 1938.

Quality deterioration is carefully watched by a full-time staff of field representatives who report their findings regularly. If an article now lasts only half as long but costs just as much as heretofore, this is counted as a doubling of price. Articles in short supply, especially those in the lower price ranges which have disappeared entirely, are similarly accounted for. For example, if a set of dishes which formerly cost \$6.95 is now unobtainable, the field representatives obtain the next cheapest price, say \$8.95, and this is counted as a price increase and given its due representation in the index.

One hundred and fifty of the most important articles of consumption are priced each month. Each one is priced in several cities (from 10 to more than 60 cities in the case of foods), and in several stores in each city so that more than 60,000 individual quotations enter into the calculations. Although a considerable proportion of these quotations is collected directly by field representatives a careful check of all price records is made after reports are received in the main office and before the tabulation stage of index calculation is reached.

# Index Numbers of Living Costs, 1939-47, and by Months, 1948

(Av. 1935-39 = 100)

Year and Month	Food	Rent	Fuel and Light	Clothing	Home Furnishings	Sundries	Total
1939.....	100.6	103.8	101.2	100.7	101.4	101.4	101.5
1940.....	105.6	106.3	107.1	109.2	107.2	102.3	105.6
1941.....	116.1	109.4	110.3	116.1	113.8	105.1	111.7
1942.....	127.2	111.3	112.8	120.0	117.9	107.1	117.0
1943.....	130.7	111.5	112.9	120.5	118.0	108.0	118.4
1944.....	131.3	111.9	110.6	121.5	118.4	108.9	118.9
1945.....	133.0	112.1	107.0	122.1	119.0	109.4	119.5
1946.....	140.4	112.7	107.4	126.3	124.5	112.6	123.6
1947.....	159.5	116.7	115.9	143.9	141.6	117.0	135.5
1948—							
January.....	182.2	119.9	120.4	161.2	158.4	122.6	148.3
February.....	186.1	119.9	120.1	165.1	159.9	122.8	150.1
March.....	185.9	119.9	121.0	169.9	161.2	122.8	150.8
April.....	186.8	119.9	121.3	172.9	161.9	122.9	151.6
May.....	191.2	120.9	122.7	173.6	161.9	122.9	153.3
June.....	193.9	120.9	124.3	174.8	162.0	122.7	154.3
July.....	201.3	120.9	124.5	175.4	162.8	123.1	156.9
August.....	202.6	120.9	127.7	175.9	161.4	123.4	157.5
September.....	203.9	121.0	128.5	179.9	164.2	124.4	158.9
October.....	205.4	121.0	128.8	181.0	165.1	124.4	159.6
November.....	204.7	121.0	129.0	181.5	166.0	124.6	159.6
December.....	202.0	121.7	129.1	181.5	166.2	124.6	158.9

C.N.R. freight-loading platform at Edmonton, Alta.





Canadian-built motor coaches being loaded by floating crane into a cargo vessel for shipment to South Africa.

## Foreign Trade International Payments

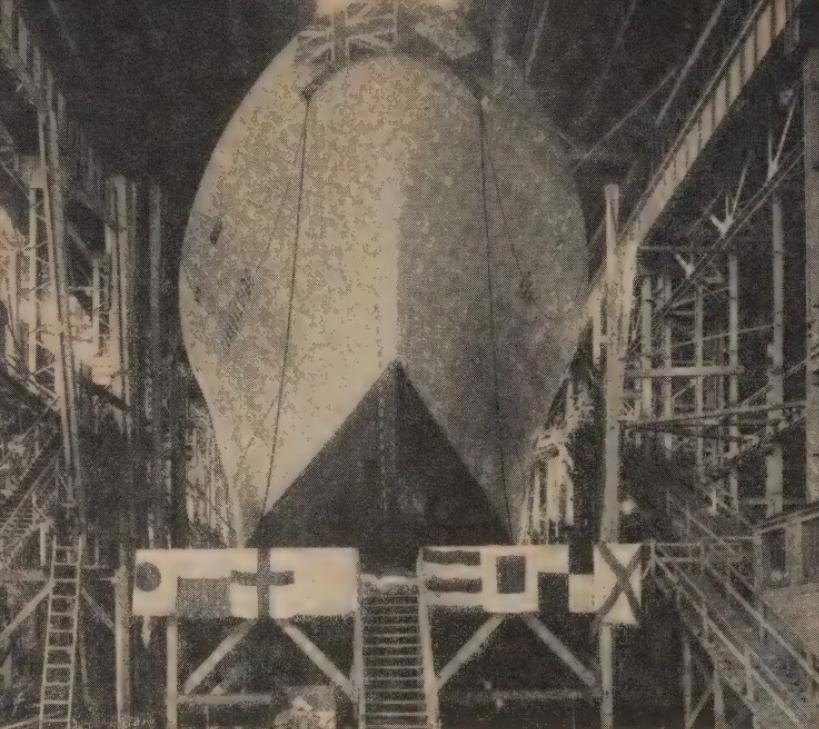
THE dollar value of Canadian foreign trade in 1947 was the highest of any year in history, with exports aggregating \$2,812,000,000 and imports \$2,574,000,000. In assessing the reasons for the increase compared with recent years, it must be remembered that both exports and imports are valued in terms of current dollars. It is difficult to measure accurately changes in physical volume of trade, but a large part of the change from the peak war years was due to rising prices. Compared with the years before the War, however, there was a substantial increase in volume which, coupled with the high post-war level of prices, resulted in a dollar value of trade in 1947 about three and one-half times that prevailing in 1938.

A preliminary survey of export and import price movements suggests that there has been no pronounced change in Canada's terms of trade over the past decade. In other words, both exports and imports have shown roughly the same increase in price, with 1947 average prices on the order of 100 p.c. higher than in 1935-39. A comparison of 1947 with 1946 shows some divergence between the two, with imports in 1947 approximately 20 p.c. higher than in 1946 and exports up about 16 p.c.

Taking these price assumptions into account, it is evident that imports have shown a considerably greater increase in physical volume than exports. The dollar value of imports in 1947 was slightly less than four times the average value in 1935-39, whereas exports were only a little more than three times as great as in the pre-war period.

In a number of respects Canadian foreign trade in 1948 was conducted under conditions markedly different from those prevailing in 1947. While the agreements concluded at Geneva for reduction of tariffs between Canada and 17 other countries became operative in January, 1948, their effects were largely overshadowed by other developments. Emergency exchange measures adopted in November, 1947, significantly influenced the nature of Canada's trade with the United States, while restrictions imposed by other nations short of hard currencies affected in turn the pattern of Canada's overseas commerce. In contrast to 1947, Canadian governmental credits in the later months of 1948 played a relatively unimportant part in the financing of exports and there was an improvement in Canada's United States dollar position.

The substantial improvement in Canada's adverse balance of trade with the United States during the first seven months of 1948 was achieved mainly by a 35 p.c. increase in exports to that country, and was dependent to a much less extent on reduction of imports which were down by only 10 p.c. During the seven-month period, the adverse trading balance was reduced from \$573,000,000 in 1947 to \$257,000,000 in 1948. Principal items contributing to the higher export values were lumber, newsprint, wood-pulp and pulpwood, base metals, agricultural implements and cattle. On the import side, restrictions sharply curtailed receipts of fibres and textiles, fresh fruits and vegetables,



A 7,500-ton ship under construction at Montreal for the Brazilian Government.

automobiles, household electrical appliances and luxury articles. On the other hand, imports of an essential nature such as coal, petroleum and heavy machinery were in significantly higher figures, reflecting both price factors and the effects of high levels of industrial activity and new capital expansion in this country.

### Imports, Exports and Total Trade of Canada, 1926-48

(Millions of Dollars)

Year	Imports	Exports			Total Trade	Excess: Imports (-) Exports (+)
		Domestic Produce	Foreign Produce	Total		
1926.....	1,008.3	1,261.2	15.4	1,276.6	2,284.9	+ 268.3
1927.....	1,087.1	1,210.6	20.4	1,231.0	2,318.1	+ 143.9
1928.....	1,222.3	1,339.4	24.4	1,363.8	2,586.1	+ 141.5
1929.....	1,299.0	1,152.4	25.9	1,178.3	2,477.3	- 120.7
1930.....	1,008.5	863.7	19.4	883.1	1,891.6	- 125.4
1931.....	628.1	587.7	11.9	599.6	1,227.7	- 28.5
1932.....	452.6	489.9	8.0	497.9	950.5	+ 45.3
1933.....	401.2	529.5	6.0	535.5	936.7	+ 134.3
1934.....	513.5	649.3	7.0	656.3	1,169.8	+ 142.8
1935.....	550.3	725.0	12.9	737.9	1,288.2	+ 187.6
1936.....	635.2	937.8	12.7	950.5	1,585.7	+ 315.3
1937.....	808.9	997.4	14.7	1,012.1	1,821.0	+ 203.2
1938.....	677.5	837.6	11.1	848.7	1,526.2	+ 171.2
1939.....	751.1	924.9	11.0	935.9	1,687.0	+ 184.8
1940.....	1,082.0	1,178.9	14.3	1,193.2	2,275.2	+ 111.2
1941.....	1,448.8	1,621.0	19.5	1,640.5	3,089.3	+ 191.7
1942.....	1,644.2	2,363.8	21.7	2,385.5	4,029.7	+ 741.3
1943.....	1,735.1	2,971.5	29.8	3,001.3	4,736.4	+ 1,266.2
1944.....	1,758.9	3,440.0	43.1	3,483.1	5,242.0	+ 1,724.2
1945.....	1,585.8	3,218.3	49.1	3,267.4	4,853.2	+ 1,681.6
1946.....	1,927.3	2,312.2	27.0	2,339.2	4,266.4	+ 411.9
1947.....	2,573.9	2,774.9	36.9	2,811.8	5,385.7	+ 237.9
1948 (7 months).	1,495.2	1,651.0	21.4	1,672.4	3,167.6	+ 177.2

## Exports

In considering the geographical alignment of Canadian export trade during 1947, there are few changes of consequence to report. The United States and the United Kingdom continued in their traditional roles as principal foreign buyers of Canadian products, although not to the same degree as before the War. In 1947, they accounted for over 64 p.c. of Canada's total exports. Of this total 37 p.c. went to the United States and 27 p.c. to the United Kingdom, compared with 41 p.c. and 36 p.c., respectively, in 1939. Of the remaining exports in 1947, 15 p.c. went to Commonwealth countries, with the Union of South Africa, Australia, Newfoundland, India and New Zealand the principal markets in this Commonwealth area. France, Netherlands, Belgium, Italy, China, Argentina and Brazil were other important buyers of Canadian products.

Exports to the United States were valued at \$1,034,000,000, approximately 16 p.c. higher than in 1946. Nearly 60 p.c. of these exports consisted of forest products, with newsprint, at \$292,000,000, the largest single item. Exports to the United Kingdom were valued at \$751,000,000, 26 p.c. higher than the corresponding figure for 1946. Food products were the largest single item, being valued in excess of 60 p.c. of total exports.

No pronounced changes were shown in the structure of commodity exports and primary products continued to dominate the list. Canadian exports have in the past tended to be concentrated in a few important items, rather than to show the diversification that prevails in the exports of the United States. This pattern was unchanged in 1947 and, in fact, total exports of the five principal products—newsprint, wheat, lumber, flour and wood-pulp—formed approximately 43 p.c. in dollar value of total export trade, compared with 38 p.c. in 1946 and 33 p.c. in 1938. This dominance of primary products is also evidenced in the next six items in order of importance—meats; fish; automobiles and trucks; aluminum; nickel and copper. These items formed 16 p.c. of total exports in 1947, although only the third can be considered fully manufactured in the same sense as a telephone, clock or an electric motor. While Canada in recent years has made great strides

One of the Canadian Pacific's fleet of fast cargo liners in service between Canada and the United Kingdom.



as an industrial nation, the trend toward greater industrial production has not been reflected in a proportionate increase in the manufactured content of her export trade.

During the first seven months of 1948, the increase in the value of Canadian exports to the United States more than counterbalanced the contraction of markets elsewhere. Exports to the United States during this period increased from \$564,000,000 in 1947 to \$765,000,000 in 1948. Exports to the United Kingdom showed little change in value at \$416,000,000 in the 1948 period compared with \$422,000,000 in 1947. The composition of exports to the United Kingdom altered significantly, higher exports of meats and base-metals offsetting reduced shipments of wheat, tobacco, oats, apples and potatoes. Exports to other British countries during the period under review decreased from \$234,000,000 to \$176,000,000, with the largest decreases showing in exports to Australia, the West Indies, New Zealand, India and Eire. Exports to Latin America were slightly lower in 1948, increased shipments to Brazil, Cuba and Mexico being more than offset by decreases to Argentina, Colombia and Peru. Shipments to Europe declined from \$210,000,000 to \$177,000,000 principally in exports to Belgium, Italy, the Netherlands, Poland, the Soviet Union and Sweden, although shipments to France, Germany, Greece and Switzerland were higher than in 1947.

Purchases in Canada under the European Recovery Program have, to some extent, acted as a counterbalance to the reduction in shipments due to the restriction or exhaustion of Canadian credits to overseas countries.

### *Exports, by Stage of Production, 1926-47*

(Values in Millions of Dollars)

Year <sup>1</sup>	Raw Materials		Partly Manufactured		Fully or Chiefly Manufactured		Total Value
	Value	P.C. of Total Exports	Value	P.C. of Total Exports	Value	P.C. of Total Exports	
1926 . . .	594	46.1	189	14.7	506	39.2	1,289
1927 . . .	572	45.9	183	14.7	490	39.4	1,245
1928 . . .	571	46.9	189	15.5	459	37.6	1,219
1929 . . .	649	48.0	195	14.5	507	37.5	1,351
1930 . . .	395	36.4	213	19.6	478	44.0	1,086
1931 . . .	295	37.8	134	17.2	352	45.0	782
1932 . . .	213	37.8	87	15.4	264	46.8	563
1933 . . .	201	42.7	67	14.2	203	43.1	470
1934 . . .	209	36.2	124	21.5	244	42.3	577
1935 . . .	234	35.7	137	20.8	285	43.5	656
1936 . . .	259	34.1	178	23.3	324	42.6	761
1937 . . .	374	38.2	220	22.5	384	39.3	978
1938 . . .	277	28.4	269	27.5	430	44.1	977
1939 . . .	231	27.8	221	26.6	379	45.6	831
1939 <sup>1</sup> . . .	274	29.6	247	26.7	404	43.7	925
1940 . . .	261	22.1	337	28.6	581	49.3	1,179
1941 . . .	322	19.9	427	26.3	872	53.8	1,621
1942 . . .	300	12.7	488	20.6	1,577	66.7	2,364
1943 . . .	519	17.5	498	16.7	1,955	65.8	2,971
1944 . . .	764	22.2	488	14.2	2,188	63.6	3,440
1945 . . .	858	26.7	536	16.6	1,824	56.7	3,218
1946 . . .	603	26.1	512	22.1	1,197	51.8	2,312
1947 . . .	645	23.3	722	26.0	1,408	50.7	2,775

<sup>1</sup> Figures for 1926 to 1939 are for the years ended Mar. 31; those for 1939 to 1947 are for calendar years.



**Grading and crating certified seed potatoes, Lulu Island, B.C.** Canadian seed potatoes from the Maritimes and British Columbia are in great demand outside the country. Exports valued at \$6,500,000 in 1947 went mainly to the United States and to Argentina and other South American countries.

### Exports, by Leading Countries, 1939 and 1946-48

NOTE.—Countries with exports of over \$5,000,000 in 1947 are arranged in order of importance.

(Thousands of Dollars)

Country	1939	1946	1947	1948 (Seven Months)
United States.....	380,392	887,941	1,034,226	764,979
United Kingdom.....	328,099	597,506	751,198	415,709
France.....	6,973	74,380	81,058	47,233
British South Africa.....	17,965	68,633	67,138	41,351
Australia.....	32,029	38,194	60,294	19,560
Netherlands.....	7,357	33,883	55,940	24,171
Newfoundland.....	8,506	38,228	55,085	28,592
Belgium.....	7,261	63,626	52,749	17,250
British India.....	5,166	49,046	42,947	15,940
New Zealand.....	11,954	16,110	37,386	10,332
Italy.....	2,231	20,387	35,688	16,842
China.....	2,636	42,915	34,984	16,998
Argentina.....	4,117	14,039	31,697	11,413
Brazil.....	4,407	24,602	31,660	16,301
Trinidad.....	4,211	19,140	26,354	9,603
Norway.....	10,904	19,267	20,320	13,144
Jamaica.....	4,313	15,500	18,214	8,615

**Exports, by Leading Countries, 1939 and 1946-48—concluded**

(Thousands of Dollars)

Country	1939	1946	1947	1948 (Seven Months)
Eire.....	3,597	7,956	17,598	4,806
Sweden.....	4,284	9,133	17,461	5,478
Poland.....	1,280	22,501	15,380	3,752
Switzerland.....	1,850	8,636	14,196	10,889
Czechoslovakia.....	181	9,871	13,779	9,630
Venezuela.....	1,702	11,086	12,989	8,204
Mexico.....	3,004	10,536	11,701	9,278
Other British West Indies.....	1,608	8,341	11,280	5,683
Egypt.....	369	15,086	10,922	3,769
Philippine Islands.....	1,819	8,901	10,448	3,603
British Guiana.....	1,586	7,109	10,273	5,340
Colombia.....	1,781	8,930	9,950	5,122
Barbados.....	1,604	6,205	9,063	3,227
Palestine.....	230	3,562	8,473	1,029
Cuba.....	1,497	5,270	7,502	6,293
British Malaya.....	2,782	3,224	7,464	4,840
Southern Rhodesia.....	1,136	3,284	7,369	1,491
Yugoslavia.....	20	12,030	6,729	986
Malta.....	382	4,671	6,705	1,199
Germany.....	7,869	6,867	6,690	8,200
Hong Kong.....	1,463	4,362	6,398	4,910
Netherlands East Indies.....	1,057	6,833	5,807	4,194
Greece.....	271	9,738	5,440	6,575
Bermuda.....	1,369	3,805	5,108	2,356
<b>Totals, Above 41 Countries.....</b>	<b>881,262</b>	<b>2,221,334</b>	<b>2,675,663</b>	<b>1,598,887</b>
<b>Grand Totals, Domestic Exports.....</b>	<b>924,926</b>	<b>2,312,215</b>	<b>2,774,902</b>	<b>1,650,983</b>
Commonwealth Countries.....	430,806	904,701	1,168,501	592,158
Foreign Countries.....	494,120	1,407,514	1,606,401	1,058,825



*Rolls of newsprint on the docks of a British Columbia pulp and paper mill ready for shipment to the United States, Australia or Central America.*

## Principal Exports, 1939 and 1946-48

NOTE.—Commodities arranged according to value in 1947.

(Thousands of Dollars)

Commodity	1939	1946	1947	1948 (Seven Months)
Newsprint paper.....	115,686	265,865	342,293	209,182
Wheat.....	109,051	250,306	265,200	118,727
Planks and boards.....	48,829	125,391	208,375	111,355
Wheat flour.....	16,378	126,733	196,578	69,900
Wood-pulp.....	31,001	114,021	177,803	123,398
Meats.....	37,445	128,936	102,857	80,366
Fish.....	27,742	86,486	82,359	48,879
Automobiles and trucks.....	22,551	57,194	71,497	21,551
Aluminum.....	25,684	56,030	63,956	61,444
Nickel.....	57,934	55,205	60,443	42,991
Copper.....	40,232	37,005	59,298	43,678
Farm implements and machinery.....	6,975	28,662	42,238	42,735
Machinery, except farm.....	10,873	15,535	41,022	23,252
Eggs.....	311	26,772	36,967	23,930
Pulpwood.....	11,901	28,731	34,529	21,962
Fertilizers, chemical.....	9,179	32,108	34,386	20,992
Rubber and manufactures.....	15,767	22,477	33,125	19,277
Asbestos.....	14,365	24,481	32,969	22,648
Rye.....	2,045	8,904	31,938	11,631
Lead.....	9,850	16,846	30,945	16,049
Zinc.....	9,922	27,769	30,193	19,740
Raw furs.....	14,130	30,928	28,036	16,511
Ships and vessels.....	486	18,822	25,724	35,923
Ferro-alloys, pigs, ingots, iron.....	5,168	12,813	25,625	15,912
Whiskey.....	7,914	29,650	23,746	13,350
Shingles, wood.....	8,225	11,211	20,254	13,272
Engines and boilers.....	259	28,764	20,198	5,033
Automobile parts.....	2,992	21,110	20,142	9,278
Electrical apparatus.....	3,229	20,939	19,135	10,235
Veneers and plywoods.....	1,609	12,026	18,499	9,247
Cattle.....	15,353	18,015	14,980	15,513
Potatoes.....	2,510	6,932	14,811	4,587
Abrasives.....	4,568	12,182	14,636	7,538
Vehicles, other than automobiles and trucks.....	407	33,773	14,628	10,883
Cheese.....	12,249	21,948	14,162	1,749
Milk, processed.....	3,295	10,677	13,581	6,498
Leather, unmanufactured.....	6,856	7,656	12,919	6,189
Tobacco, unmanufactured.....	10,182	5,892	12,601	5,985
Oats.....	4,142	23,108	12,389	6,422

## Imports

Total imports in 1947 were at an all-time high in dollar value and although price increases had a considerable effect on this increase in value, there is no doubt that the physical volume of imports was also at a record high. At \$2,574,000,000, imports were 34 p.c. above the corresponding figure for 1946. Of Canada's total imports in 1947, the United States supplied \$1,975,000,000, or 77 p.c. of the total. These United States imports represented a 41 p.c. increase over the preceding year in value and, assuming a price increase of about 20 p.c., approximately 15 p.c. in physical volume.

Imports from the United Kingdom were valued at \$189,000,000, or 7 p.c. of the total, that country being the second most important source of foreign products bought by Canadians. Other Commonwealth countries supplied 6 p.c. of Canadian imports and Latin America 6 p.c.

There were few significant changes in the commodity structure of Canadian imports in 1947 over the preceding year, although manufactured goods and machinery showed a greater proportionate increase than fuels,

primary materials and foodstuffs. However, a brief survey of Canadian imports during the first seven months of 1948 reveals certain changes in the pattern of trade, both as to composition and country distribution. These changes are no doubt reflections of emergency exchange measures, the Geneva agreements and the general dislocation of international trade. Total imports held the same level amounting to \$1,495,000,000 during the first seven months of 1948 as compared with \$1,484,000,000 during the comparable period of 1947. Imports from the United States were curtailed to some extent, falling from a value of \$1,150,000,000 in the 1947 period to \$1,034,000,000 in 1948. The effects of prohibitions and import quotas are shown in large reductions

The Canadian International Trade Fair, the first of its kind to be held in North America, took place at Toronto, May 31 to June 12, 1948, sponsored by the Canadian Government. The products of 1,500 exhibitors from 32 countries were on display and for two weeks business men from every quarter of the globe mingled to establish closer trade relationships with one another. The conduct of this Fair, now planned as an annual event, demonstrated Canada's eagerness to stimulate world trade and to claim a share in it.



of imports of commodities such as fresh fruits and vegetables, cotton fabrics and automobiles, partly counterbalanced by increased imports of coal, petroleum, tractors and other industrial machinery.

On the other hand, imports from the United Kingdom during the same period rose from \$102,000,000 in 1947 to \$169,000,000 in 1948, an increase of over 65 p.c. in the movement of British goods to Canada. Chief contributors to this improvement have been raw wool, woollen and cotton fabrics, automobiles, china and glass. Imports from other countries also showed some increases, the largest of which was in shipments from Latin America. This group of countries supplied goods to the value of \$128,000,000 in 1948 as against a value of \$83,000,000 in 1947. The most important increases were shown in imports of crude petroleum from Venezuela, coffee from Brazil, raw cotton from Mexico and raw sugar from the Dominican Republic.

### *Imports, by Leading Countries, 1939 and 1946-48*

NOTE.—Countries with imports of over \$3,000,000 in 1947 are arranged in order of importance.

(Thousands of Dollars)

Country	1939	1946	1947	1948 (Seven Months)
United States.....	496,898	1,405,297	1,974,679	1,033,966
United Kingdom.....	114,007	201,433	189,370	168,508
Venezuela.....	1,943	26,886	46,688	53,015
British India.....	9,808	27,877	42,250	23,671
Cuba.....	889	13,228	23,751	12,116
Argentina.....	4,406	14,372	17,961	5,104
Mexico.....	479	14,610	16,980	19,632
British Malaya.....	13,145	5,871	16,908	11,350
Australia.....	11,269	19,754	14,222	11,018
Brazil.....	1,111	14,018	13,888	12,001
British Guiana.....	6,891	12,187	12,357	7,938
Switzerland.....	3,459	11,149	11,941	4,193
Ceylon.....	3,562	3,745	11,653	6,256
New Zealand.....	4,266	11,956	10,831	6,812
Belgium.....	6,778	4,429	10,120	7,210
Guatemala.....	164	2,928	9,488	5,242
Newfoundland.....	1,995	9,268	9,427	4,668
Colombia.....	5,437	9,708	9,197	4,836
France.....	6,027	4,610	8,755	6,408
Netherlands West Indies.....	270	3,186	8,647	4,417
Dominican Republic.....	16	7,127	8,186	7,976
Philippine Islands.....	451	2,058	8,063	5,669
Barbados.....	3,874	5,548	7,776	4,010
British East Africa.....	2,626	3,603	7,683	5,898
Honduras.....	17	15,573	6,999	3,066
Gold Coast.....	251	5,381	6,493	6,822
Jamaica.....	4,357	10,484	6,371	5,266
Trinidad.....	2,668	4,137	5,654	5,139
Norway.....	680	836	4,999	393
British South Africa.....	3,991	7,892	4,256	1,807
Fiji Islands.....	2,777	3,123	4,178	2,685
Italy.....	2,354	2,704	3,872	3,849
Czechoslovakia.....	191	964	3,645	2,505
Netherlands.....	3,795	2,497	3,530	2,484
Sweden.....	2,289	3,681	3,184	1,709
Spain.....	663	4,484	3,003	1,595
<b>Totals, Above 36 Countries.....</b>	<b>723,804</b>	<b>1,896,604</b>	<b>2,547,005</b>	<b>1,469,234</b>
<b>Grand Totals, Imports.....</b>	<b>751,055</b>	<b>1,927,279</b>	<b>2,573,944</b>	<b>1,495,175</b>
Commonwealth Countries.....	188,900	340,501	354,394	278,082
Foreign Countries.....	562,155	1,586,778	2,219,550	1,217,093

## Principal Imports, 1939 and 1946-48

NOTE.—Commodities arranged according to value in 1947.

(Thousands of Dollars)

Commodity	1939	1946	1947	1948 (Seven Months)
Machinery.....	42,829	130,287	206,011	136,207
Coal.....	41,579	120,354	138,950	93,230
Petroleum, crude.....	39,677	89,547	128,827	105,420
Farm implements and machinery.....	20,917	68,352	105,405	82,241
Automobile parts.....	25,308	66,453	98,432	56,779
Cotton fabrics.....	10,935	54,153	82,573	29,808
Rolling-mill products.....	32,334	53,376	77,970	47,205
Automobiles and trucks.....	15,674	31,702	69,540	12,754
Electrical apparatus.....	13,752	47,788	68,773	39,522
Cotton, raw and unmanufactured.....	17,176	44,657	60,816	35,852
Fruits, fresh.....	15,384	69,587	51,703	21,395
Sugar for refining.....	20,226	32,416	47,397	31,055
Engines and boilers.....	7,606	29,462	43,882	30,547
Books and printed matter.....	19,152	30,737	31,934	17,967
Grains.....	7,376	15,260	30,580	14,246
Wool, raw and unmanufactured.....	10,587	29,825	30,070	28,703
Woollen fabrics.....	10,408	20,115	29,663	25,188
Rubber and manufactures.....	16,116	20,079	28,730	17,908
Glass and glassware.....	7,915	23,258	28,626	15,924
Jute fabrics.....	4,014	14,474	25,854	10,936
Oils, vegetable.....	9,415	15,062	25,632	13,828
Gasoline.....	7,998	14,911	25,522	20,860
Clay and clay products.....	7,935	17,825	24,059	17,404
Paper.....	8,654	18,834	23,027	10,304
Furs.....	7,133	27,292	22,451	14,850
Nuts.....	3,724	22,591	22,050	19,326
Tea.....	10,091	10,208	20,655	10,058
Vegetables, fresh.....	6,151	25,748	18,978	5,203
Scientific and educational equipment.....	4,762	13,820	18,359	10,700
Stone and products.....	7,612	14,676	18,357	10,061
Wood, manufactured.....	4,659	11,467	17,958	8,227
Cotton yarns.....	3,057	9,197	16,608	7,911
Artificial silk fabrics.....	2,024	9,833	16,145	7,365
Tourists' purchases.....	9,487	9,125	15,870	246
Scientific resins.....	1,673	13,681	15,045	9,357
Coffee.....	4,603	16,162	14,382	13,424
Fruits, dried.....	5,723	13,921	13,789	3,396
Inorganic chemicals.....	9,364	12,563	13,787	9,559
Beverages, alcoholic.....	6,540	12,911	13,727	7,227
Stoves and heating apparatus.....	2,332	10,462	13,647	4,119
Paints.....	4,662	9,437	13,441	8,755
Coal oil and kerosene.....	6,518	2,280	12,448	3,651
Aircraft.....	5,550	9,448	12,284	4,356

## Canadian Balance of International Payments

All of Canada's commercial and financial transactions with other countries are summarized in statements of the Canadian balance of payments. These statements focus attention upon the exchange and financial problems arising out of Canadian trading relations with other countries.

The geographical directions and the characteristic unbalance in the flow of Canada's international trade with different countries and currency areas have led to distinct patterns of trade. Canadian exports are predominantly to the Commonwealth countries and to other overseas countries, and imports are mainly from the United States. Thus there is a customary lack of balance in Canada's trade with the United States vis-à-vis the United Kingdom and Europe which did not in pre-war periods give rise to special problems of financing because surplus income from exports to overseas countries could be freely converted to cover Canadian purchases in the United



S.S. "Canadian Constructor" loading sugar at Georgetown, British Guiana. Of 9,962,365 cwt. of raw sugar imported by Canada in 1947, 1,408,929 cwt. was purchased from British Guiana.

States. It did lead, however, to close relationships between the Canadian dollar and sterling and the United States dollar because of the normal dependence on sales of sterling to produce United States dollars to meet Canadian expenditures in the United States.

Because of the commercial and financial problems arising from the unbalance in Canada's accounts during the War and continuing in the post-war years, the Canadian balance of payments must be studied from three distinct angles: (1) the balance of payments between Canada and the sterling area (which covers all Commonwealth countries except Canada and Newfoundland and several foreign nations as well); (2) the balance of payments between Canada and the rest of the world with which Canada's dealings are on a United States dollar basis; and (3) that portion of export trade with other foreign nations which in recent years has been financed out of export credits or by other special means.

After 1939, because Canada's sterling income was no longer freely convertible into United States dollars, there was need for special methods of financing exports to Britain and for providing for exports and aiding in reconstruction during the transitional years in the case of many other allied nations whose economies were adversely affected by the War. Without the credits received from Canada for financing exports, these countries would have had insufficient current dollar resources to meet expenditures in Canada. During the War, Mutual Aid was the principal form of financing abnormal exports. Later, the loan of \$1,250,000,000 to the United Kingdom and

Canada's export credit program under which export credits of \$594,500,000 were authorized became the principal special method of financing overseas purchases in Canada. In addition, considerable amounts of exports from Canada were financed out of Canada's contribution to UNRRA. Because of these special arrangements, very large proportions of Canadian exports to overseas countries have been financed by the Canadian Government.

In 1946, Canada had an excess of \$454,000,000 of exports of goods and services to all countries over imports of goods and services. The credit balance from trade with all overseas countries amounted to \$1,067,000,000, while the deficit with the United States was \$613,000,000. Almost all of the credit balance with overseas countries was financed by loans and advances by the Canadian Government which, together with official contributions of relief and aid, totalled about \$954,000,000. Some decline in Canada's official reserves occurred in 1946 after a period of years during which these had been increasing. This decline was relatively small in comparison with the large current deficit that reappeared with the United States, chiefly because of the current surplus with all countries which was still substantial, and the existence of private capital inflows to Canada during 1946.

However, in 1947, a large loss of \$743,000,000 occurred in Canada's official reserves and current account surplus was reduced to only \$47,000,000. Although exports of goods and services continued to exceed imports by the amount of that current surplus there was no foreign exchange received from overseas exports financed by export credits amounting to \$563,000,000. Further adding to the drain in reserves were net outflows of capital of \$154,000,000, mainly for the redemption of Canadian securities owned abroad, and the gold subscription of \$74,000,000 by Canada to the International Monetary Fund.

The reduction in Canada's current account surplus in 1947 was chiefly the result of the sharp increase in the current deficit with the United States which grew from a previous record of \$613,000,000 in 1946 to \$1,138,000,000 in 1947. The principal factor contributing to this increase was the expansion in current expenditures in the United States of about 30 p.c. during the year. This growth resulted from the high level of Canadian prosperity which created heavy demands for United States imports; the fact that capital investment, especially in industrial plants and equipment, had a particularly high United States dollar content; the building up of inventories from their low post-war level; and the rise in prices in the United States.

There was no corresponding rise in exports to the United States in 1947 since available productive capacity was either already largely allocated, as in the case of the forest products industries, or increases in output were retarded by labour shortages or other obstacles to production, as in the case of gold.

Expenditures for other current purposes increased as well. Accompanying the growth in the merchandise deficit were higher transportation costs due to a greater volume of imports and to higher freight rates in the United States. At the same time payments of dividends by Canadian companies to United States shareholders increased sharply. Likewise high Canadian incomes led to a further rise in Canadian travel expenditures in the United States which were greater than the appreciable growth in the expenditures of United States tourists in Canada. Consequently net receipts on travel account were less than in 1946.



*Canadian Holstein-Friesian heifer and calf in the auction ring at Kinnerton, Cheshire, England. Imports of dairy cattle are assisting British farmers to increase output of dairy products.*

*Restrictions on Purchases from the United States, November, 1947.*—It was this extraordinary current deficit with the United States at a time when receipts of convertible exchange from other countries were limited that led to the Canadian shortage of United States dollars and the necessity of reducing expenditures of United States exchange. The measures introduced by the Canadian Government in November, 1947, because of the loss of official reserves were designed both to conserve the expenditures of United States dollars and to provide for increased receipts of dollars. The most extensive were the restrictions upon imports which took the form of prohibiting imports of a variety of consumer goods and other articles, and a reduction in the volume of imports of a variety of other commodities which were placed under quota. At the same time restrictions upon pleasure travel involving expenditures of United States dollars were reimposed and arrangements for a credit to the Canadian Government from the Export-Import Bank of Washington were announced.

Appreciable improvements took place in Canada's official reserves following the introduction of these remedial measures. During the first half of 1948, in comparison with the same period of 1947, there was some increase in the surplus of exports from Canada to all countries along with a substantial reduction in the commodity deficit with the United States due to increased exports to that country combined with a reduction in imports. But this favourable trend in the trade balance with the United States was not repeated in the trade trends with other countries. Although exports to the United Kingdom in the first half of 1948 showed some small increase over the same period of 1947 imports from that country were much heavier, partly due to the effects of Government policies. But there was a marked deterioration in Canada's export balances with other Commonwealth countries chiefly due to the reintroduction of import restrictions in the sterling area. There was also some decline in exports to other foreign countries including Latin America and Europe, accompanied by increases in imports from Latin America. An important change in the financial background in 1948 contributing to the improvement in Canada's position was the reduced volume of exports financed by the Canadian loan to the United Kingdom and by export credits to other countries. Another financial development was the placing of a long-term loan of \$150,000,000 with insurance companies in the United States by the Canadian Government in the summer of 1948. The proceeds of this loan were chiefly employed for repaying amounts drawn under the credit from the Export-Import Bank earlier in the year.

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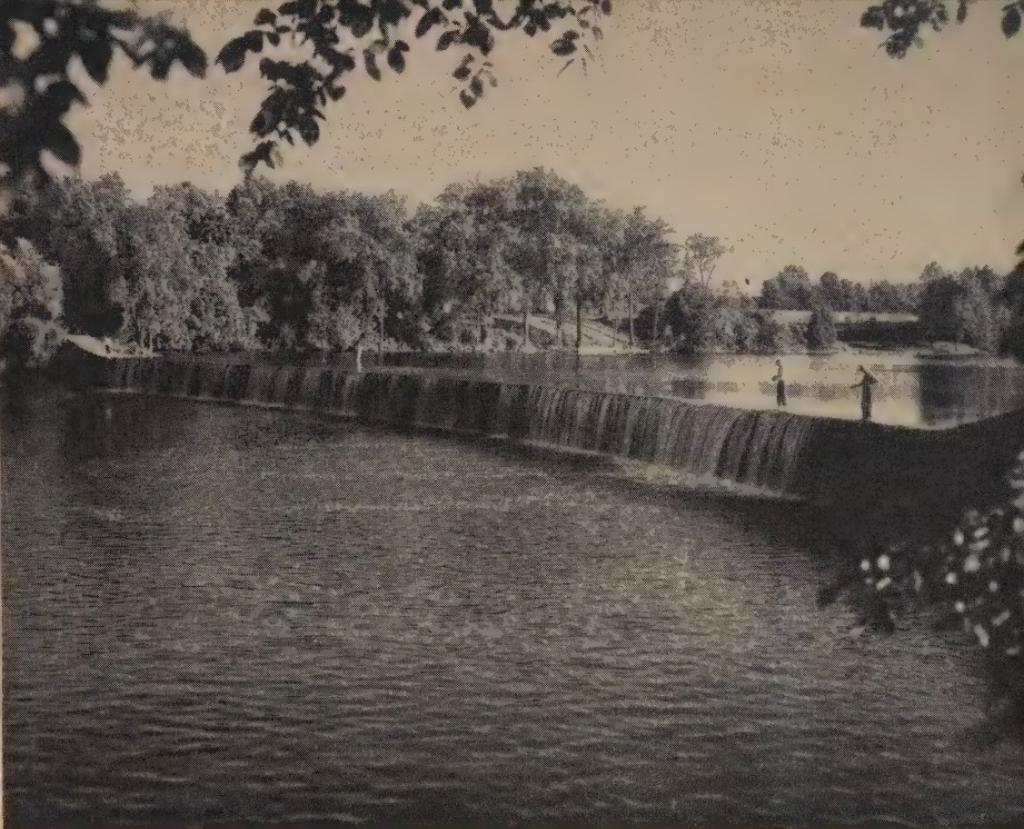
*Tourists debarking from a steamship at Victoria harbour, B.C.*



The international tourist trade was of more benefit to the Canadian economy in 1948 than it was in the previous year because of the larger net receipts from United States tourists. In both years foreign travellers entered Canada in record-breaking volume, but official restrictions passed by the Government in November, 1947, as part of its dollar conservation program, reduced the number of Canadian visits to the United States in 1948 and had a moderating effect on Canadian expenditures in that country. In each of the years 1944, 1945 and 1946, net credits accruing to Canada from the international tourist trade exceeded those of the year before. Although in each of these years Canadian disbursements in other countries increased over the preceding year, receipts from foreign travellers increased at a faster rate. The year 1947 brought a reversal of this trend with a greater gain in debits than in credits. But in 1948 the regulations on pleasure travel involving United States dollars brought a return to the former trend of rising annual net credits.

The Canadian exchange restrictions limited in general the amount of United States dollars which a Canadian resident was permitted to use for pleasure travel to \$150 per year. Expenditures of reasonable amounts of United States dollars for business and other necessary travel were allowed, as well as reasonable expenditures for all types of travel in the sterling area. The rationing of United States dollars for pleasure travel, being on an annual basis, did not have a uniformly restrictive effect in every month of the year. Much of the luxury spending in Florida and other southern States during the winter was cut off, although many people were able to go south because of health or age. Many travellers saved their annual allotment of United States dollars until the summer months. As an illustration, the number of Canadian automobiles returning from visits to the United States lasting 24 hours or longer showed a decrease from the year before of less than 3 p.c. in July and August, compared to a drop of 34 p.c. in April. Purchases of foreign merchandise declared to the Canadian Customs by returning Canadians were drastically reduced by prohibitions which eliminated virtually everything the tourist had been in the habit of buying.

The number of travellers entering Canada from the United States by automobile in 1948 was greater than in any previous year, the number of vehicles entering on customs permits being close to 1,800,000 as compared with 1,664,000 in 1947. The decline in the number of entries by train, which commenced in 1946, was continued in both 1947 and 1948. The volume of traffic entering by bus, boat, and aircraft showed less change from the previous year than was shown by automobile and train traffic. Expenditures of foreign travellers were higher in 1948 than in 1947 but the increase was less than proportionate to the rise in the cost of living in Canada. Early in the year the United States Government passed regulations increasing from \$100 to \$400 the value of duty-free purchases which might be imported into the United States by returning residents who had remained out of the country for periods of 12 days or more. The change did not have any marked effect in raising the average expenditure of United States travellers in Canada. The greatest rise was shown by travellers remaining in Canada for 48 hours or less, due no doubt to increased purchases of foodstuffs and other commodities which were in greater supply or were attractively priced in Canadian border communities.



A popular fishing spot on the Rideau River, Ontario

Canadian travel to the United States in 1948 decreased both in volume of traffic and in rate of spending, while overseas travel, both by non-residents and residents, extended the substantial gains made in 1946 and 1947. Better transportation facilities, both water and air, contributed to a greater proportionate increase in traffic from overseas countries than from the United States. Unhampered by restrictions on currency, Canadians travelled to the United Kingdom and the West Indies in ever-increasing numbers.

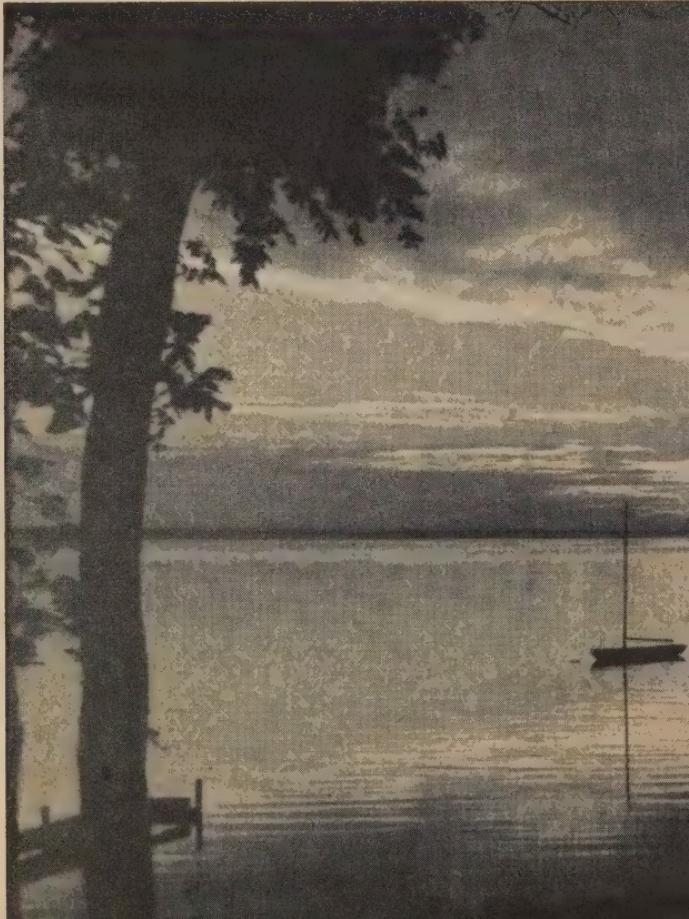
The balance of payments on travel account between Canada and all countries for the years 1938-47 is given in the following statement. Data for 1948 are not yet complete.

Year	Credits	Debits	Net
(Millions of Dollars)			
1938.....	149	86	+63
1939.....	149	81	+68
1940.....	104	43	+61
1941.....	111	21	+90
1942.....	81	26	+55
1943.....	88	36	+52
1944.....	119	58	+61
1945.....	165	83	+82
1946.....	221	135	+86
1947.....	245	167	+78

An analysis of expenditures of travellers between Canada and the United States, classified by means of travel, illustrates the recovery from the effects of wartime restrictions.

<i>Means of Travel</i>	<i>1942</i>	<i>1943</i>	<i>1944</i>	<i>1945</i>	<i>1946</i>	<i>1947</i>
(Millions of Canadian Dollars)						
<b>EXPENDITURES IN CANADA OF TRAVELLERS FROM U.S.—</b>						
Automobile.....	26.0	17.0	24.4	56.9	98.0	112.2
Rail.....	32.0	49.0	67.2	64.3	61.4	55.9
Boat.....	4.0	6.0	7.9	13.0	17.3	21.8
Through bus.....	6.0	5.0	6.3	12.9	15.8	16.9
Aircraft.....	3.0	3.0	3.2	5.6	10.3	13.1
Other (pedestrians, local bus, etc.).....	8.0	7.0	7.5	10.6	13.3	14.8
<b>TOTALS.....</b>	<b>79.0</b>	<b>87.0</b>	<b>116.6</b>	<b>163.3</b>	<b>216.1</b>	<b>234.7</b>
<b>EXPENDITURES IN U.S. OF TRAVELLERS FROM CANADA—</b>						
Automobile.....	2.6	1.9	3.8	7.5	21.7	32.6
Rail.....	13.9	22.0	33.1	39.4	49.6	52.2
Boat.....	0.5	0.7	1.1	1.8	3.2	4.1
Through bus.....	2.6	3.2	8.7	17.0	28.5	34.6
Aircraft.....	1.1	1.2	2.4	4.1	8.8	9.0
Other (pedestrians, local bus, etc.).....	3.7	4.7	7.9	11.0	18.1	19.8
<b>TOTALS.....</b>	<b>24.4</b>	<b>33.7</b>	<b>57.1</b>	<b>80.9</b>	<b>129.9</b>	<b>152.3</b>

*Evening on Lake St. Louis, Quebec.*





Prospective home owners looking over the possibilities of a new housing site. The year 1948 has recorded substantial improvement in the general housing situation. The level of residential construction and the carryover of unfinished work at the close of the year were greater than for any year since the end of the War.

# Construction

**T**HE construction industry had not recovered from the depressed conditions of the early 1930's when war production began to drain off materials and labour from peacetime projects. This was particularly evident in residential construction. Increased personal incomes allowed many families to expand into separate or larger living quarters while at the same time marriage rates were high. Since the end of the War considerable progress has been made to alleviate the shortage of housing and in 1947, for the first time in about ten years, the number of new dwelling units exceeded moderately the net increase in the number of households.

## ★ *Government Assistance*

Since 1935, the Federal Government has administered legislation designed to assist in the financing and improvement of housing in Canada. There are three Acts of Parliament in effect at the present time under which it is possible to obtain help from the Federal Government for the purpose of building houses: the National Housing Act, 1944; the Farm Improvement Loans Act; and the Veterans' Land Act. The first two are outlined below while the third is dealt with under Veterans Affairs, p. 91.

**Central Mortgage and Housing Corporation.**—To provide co-ordination in the housing field, the Central Mortgage and Housing Corporation was incorporated by an Act of the Twentieth Parliament (December, 1945). Briefly, its purpose and functions are: (1) to administer the National Housing Act, 1944, and earlier housing legislation; (2) to provide facilities for the rediscounting of mortgages by lending institutions; and (3) to administer the Emergency Shelter Regulations. In January, 1947, the Corporation assumed supervision of the activities of Wartime Housing Limited, a Crown Company formed in February, 1941. In September, 1947, the Corporation also became responsible for the management of Housing Enterprises of Canada, Ltd., and its operating companies. Thus, by the end of 1947, most of the housing activities of the Federal Government were being administered by the Corporation.

### *National Housing Act, 1944*

The National Housing Act, 1944, covers virtually the entire housing field. During 1947 amendments were made to the Act for the purpose of assisting individuals with moderate and low incomes to purchase homes, encouraging the construction of rental housing and assisting in the construction of rural housing.

**Joint Loans.**—Loans are made jointly by the Central Mortgage and Housing Corporation and approved lending institutions to prospective home

owners or to builders of houses for sale to occupants. Houses must be constructed according to sound, prescribed standards. Loans to purchasers of houses built under the Integrated Housing Plan or by builders for sale at a price approved in advance by the Corporation are based on the following percentages of lending value: 95 p.c. of the first \$3,000, 85 p.c. of the next \$3,000 and 70 p.c. of the remainder. In computing loans for the purchase of houses without a fixed sale price, the percentages are: 95 p.c. of the first \$2,000, 85 p.c. of the next \$2,000 and 70 p.c. of the remainder. Twenty-five per cent of the money borrowed is furnished by the Corporation; interest payable by the borrower is  $4\frac{1}{2}$  p.c. per annum, calculated semi-annually. Term of the loan may be up to 30 years. Payments of principal, interest and taxes are made in monthly instalments comparable to rent. Joint loans may be made for rental-housing projects on much the same terms, except that the loan must not exceed 80 p.c. of the lending value and that the maximum term is 30 years.

In the first seven months of 1948, a total of 11,143 units were financed under the joint loans sections of the Act, involving \$57,764,460 or an average loan per unit of \$5,184. These figures compare with 6,792 units, involving \$32,652,400, or an average loan of \$4,807 per unit in the same period of 1947.

**Rental Housing.**—To encourage the construction of rental housing, provision was made for depreciation for a period of ten years at double the rates normally allowed for income tax purposes, for approved types of dwellings comprising four or more family units.

**Limited Dividend Companies.**—The Act provides for loans to limited dividend companies for the construction of low-rental housing. Such loans may be for 90 p.c. of the lending value of the project at an interest rate of 3 p.c. per annum. Their period of amortization may be extended to 50 years. Life insurance companies under Federal jurisdiction are authorized to invest up to 5 p.c. of their Canadian assets in a low- or moderate-rental housing project, and are guaranteed a net return of  $2\frac{1}{2}$  p.c. per annum on such investments. During 1947 only one new project was approved; the high level of building costs has deterred the development of low-rental housing.

**Loans to Primary Producers.**—The Corporation is authorized to make direct advances to mining, lumbering, logging and fishing companies in outlying areas to assist in providing homes for their employees. Loans are made to, or are guaranteed by, the company concerned; the term of the loan may be as long as 15 years, the rate of interest is 4 p.c. and the company cannot earn on its investment in the housing project more than 4 p.c. interest. The maximum loan is 80 p.c. of the lending value.

**Farm Loans.**—Loans may be made on the following terms to assist in the construction of houses on farms; (a) where a farm is clear of encumbrance, a loan will be the least of \$5,000, the cost of building the house, or two-thirds of the appraised value of the farm; (b) where a farm is already mortgaged, a loan will be the least of \$8,000, the aggregate of the cost of building the house and the amount necessary to discharge all encumbrances on the farm, or two-thirds of the appraised value of the farm. The rate of interest is  $4\frac{1}{2}$  p.c.; the term of the loan up to 20 years.

*Window detail of an experimental test house under construction by the National Research Council.*



**Home Extension Loans.**—Loans may be made by banks or approved instalment credit agencies for home improvement and home extension purposes. These loans are intended to assist home owners to finance additional dwelling units in existing houses. They bear interest at 5 p.c. The section dealing with home improvement loans has not been proclaimed owing to the shortage of building materials.

**Integrated Housing Plan.**—This plan involves an agreement with a builder to build houses at a controlled sales price for veterans preference. The Central Mortgage and Housing Corporation gives priority assistance and undertakes to purchase houses not sold within six months of the completion date. The provisions governing the size of the loan are the same as for joint loans.

**Research and Community Planning.**—The research plans cover the fields of: economic and statistical inquiries; technical research in materials, equipment, standards, etc.; and design. In 1947, the National Research Council formed a Division of Building Research to undertake the major portion of actual technical and laboratory research work regarding building methods and materials.

**Slum Clearance.**—Due to the extreme shortage of housing accommodation during 1947 slum clearance projects were not pressed.

**Emergency Shelter Regulations.**—This legislation is intended to assist municipalities in converting unoccupied houses, barracks, or other suitable buildings for the accommodation of families suffering actual distress or hardship through lack of shelter. By the end of 1947, 9,618 units were completed or were nearing completion. There are now very few suitable buildings available and activity in this field was greatly reduced in 1948.

**Land Assembly.**—Because of the shortage of serviced land in almost every Canadian municipality, approved lending institutions are now enabled under the National Housing Act, but only with approval of the Central Mortgage and Housing Corporation, to purchase raw land to be used for housing development and to install the necessary services such as roads, sewers and water. The price of the land to the builder or home owner will be fixed to assure that the home owner receives full benefit of the economies effected by this method of land assembly.

### *Farm Improvement Loans Act*

The Farm Improvement Loans Act, 1944, is designed to provide short-term and intermediate-term credit to farmers. Under its provisions, the Federal Government authorizes the chartered banks of Canada to make loans over a three-year period and up to \$250,000,000 under a 10 p.c. Government guarantee against loss. The maximum of an individual loan is \$3,000, the interest rate is 5 p.c. simple interest, and the repayment periods are from one to ten years, depending upon the amount borrowed and the purpose for which the loan is obtained. The Act restricts loans to farmers.

There are two broad aims behind this legislation, the first of which is the improvement and development of farms. Loans will be made for the installation of modern, labour-saving equipment, more and better live stock, and for other improvements necessary to maximum farm production. The second is the improvement of living conditions on farms, such as the provision of electrification, refrigeration, heating systems, water systems, and all those things that make for comfort and convenience in living and that do so much to eliminate drudgery for the farm housewife.

There are seven classes of Farm Improvement Loans: (1) purchase of agricultural implements; (2) purchase of live stock; (3) purchase of agricultural equipment or installation of a farm electrical system; (4) alteration or improvement of a farm electrical system; (5) fencing or drainage; (6) construction, repair or alteration of, or addition to, farm buildings; and (7) general improvement or development of the farm.

It was intended that this Act should remain in force for three years. During that period, which ended Feb. 29, 1948, 41,730 loans were made amounting to \$33,638,575 and not a single claim was made by any bank under the guarantee. Because of the success of its operation, Parliament in 1948 extended the life of the Act for another three years commencing Mar. 1, 1948.

### **★ Construction Statistics**

**Housing.**—It is estimated that 79,359 dwelling units were completed during 1947, an increase of 12,044 over the total for 1946. This brings completions during the first three post-war years to almost 200,000 units.

During the first ten months of 1948, it is estimated that an additional 58,402 dwelling units were completed and, at Oct. 31, there were 62,890 units under construction. Completions over the last two months of 1948 are expected to bring the total for the year to more than 80,000.

### Dwelling Units Built, by Type, 1945-48

Type	1945	1946	1947	1948 <sup>1</sup>
No.	No.	No.	No.	
New Construction—				
One-family detached.....	32,681	50,457	58,883	47,646
Two-family detached.....	3,694	4,206	5,314	3,286
Row or terrace.....	235	510	608	1,159
Apartment or flat.....	4,009	2,898	7,460	6,132
Other.....	1,166	2,504	81	179
Totals, New Construction.....	41,785	60,575	72,346	58,402
Conversions.....	5,982	6,740	7,013	<sup>2</sup>
<b>Grand Totals.....</b>	<b>47,767</b>	<b>67,315</b>	<b>79,359</b>	<sup>2</sup>

<sup>1</sup> First ten months.

<sup>2</sup> Not available.

About 34 p.c. of the dwelling units completed in 1947 were in the 12 major metropolitan areas containing about one-third of the population of Canada.

### Dwelling Units Built, by Metropolitan Areas, 1945-48

Metropolitan Area	1945	1946	1947	1948 <sup>1</sup>
No.	No.	No.	No.	
Halifax.....	189	935	719	363
Saint John.....	163	413	521	109
Quebec.....	1,054	1,179	998	848
Montreal.....	4,788	3,956	6,853	6,592
Toronto.....	3,533	4,447	4,257	3,438
Ottawa.....	1,497	1,608	1,418	989
Hamilton.....	613	689	1,481	1,069
London.....	446	852	1,027	631
Windsor.....	747	814	876	498
Winnipeg.....	1,310	2,417	3,574	2,247
Vancouver.....	2,875	4,523	4,313	5,660
Victoria.....	650	964	1,046	1,039
<b>Totals, 12 Metropolitan Areas.....</b>	<b>17,865</b>	<b>22,797</b>	<b>27,083</b>	<b>23,483</b>

<sup>1</sup> First ten months.

**All Construction.**—The value of construction work performed during 1947 at \$1,256,535,677 showed a 44·7 p.c. increase over that for 1946. While the advance was accounted for to a great extent by an increase in the number of structures, engineering works, etc., undertaken, the increased costs of labour and material played a definite part in raising the value. The cost of materials was \$654,996,225 in 1947 as compared with \$459,965,741 in 1946.

Construction in Ontario, which accounted for 40 p.c. of the total in 1947, increased by 44·3 p.c. over 1946. Quebec accounted for about 27 p.c. of the total in 1947 and showed an increase of 50·1 p.c. over 1946. British Columbia and Yukon increased 48·6 p.c. in the same comparison.



**Construction camp and site of Canada's largest post-war power development located at Des Joachims on the Ottawa River. Work is proceeding rapidly on this project the ultimate capacity of which, when placed in full operation during 1951, will be 480,000 h.p. The dam will close the three river channels shown.**

#### **Statistics of the Construction Industry, 1939-47**

Year and Province	Persons Employed	Salaries and Wages Paid	Cost of Materials Used	Value of Work Performed
	No.	\$	\$	\$
1939.....	148,414	153,442,443	189,497,342	373,203,680
1940.....	149,830	180,229,498	267,228,786	474,122,778
1941.....	176,358	235,631,781	370,188,739	639,750,624
1942.....	175,267	262,043,471	324,732,380	635,649,570
1943.....	155,300	246,836,035	278,888,384	572,426,551
1944.....	123,892	197,703,984	200,801,042	449,838,059
1945.....	146,530	233,991,454	275,621,996	543,579,833
1946.....	198,851	344,893,057	459,965,741	868,661,403
1947.....	250,330	482,907,226	654,996,225	1,256,535,677
<b>1947</b>				
Prince Edward Island.....	638	1,074,926	1,554,701	3,070,960
Nova Scotia.....	12,842	23,091,619	24,460,044	52,896,815
New Brunswick.....	9,442	15,981,036	22,160,964	42,674,675
Quebec.....	70,970	132,495,276	181,616,839	338,514,778
Ontario.....	96,575	191,476,627	257,098,224	501,650,833
Manitoba.....	11,175	20,718,499	33,396,594	61,254,260
Saskatchewan.....	7,913	14,537,477	20,266,588	40,008,598
Alberta.....	12,261	23,493,667	34,409,472	67,651,310
British Columbia and Yukon.....	28,514	60,038,099	80,032,799	148,813,448

The value of residential construction, which accounted for 35.4 p.c. of the total building construction, showed an increase of 20.5 p.c. in 1947 over the previous year. The value of other building construction increased by 43.2 p.c. in the same comparison, jobbing trades in connection with building by 27.3 p.c., while engineering increased by 76.6 p.c.

### Values of Construction, by Types, 1945-47

Type of Construction	1945	1946	1947	Increase or Decrease 1946 to 1947
	\$	\$	\$	\$
Residential.....	125,524,346	193,626,880	233,303,589	+39,676,709
Commercial.....	42,873,383	88,081,972	151,130,511	+63,048,539
Industrial.....	82,800,022	151,305,541	193,053,068	+41,747,527
Churches, institutions, etc.....	30,449,556	48,623,956	73,361,869	+24,737,913
Other building .....	6,445,275	8,769,191	7,534,016	-1,235,175
<b>Totals, Building Construction.....</b>	<b>288,092,582</b>	<b>490,407,540</b>	<b>658,383,053</b>	<b>+167,975,513</b>
Streets, highways, etc.....	78,585,511	110,861,127	201,449,415	+90,588,288
Bridges, viaducts, etc.....	8,151,938	9,780,744	19,110,260	+9,329,516
Watermain, sewers, etc.....	16,149,402	27,024,133	36,578,364	+9,554,231
Dams, reservoirs, etc.....	3,126,289	9,264,436	11,218,844	+1,954,408
Central electric stations and transmission lines.....	24,704,582	48,952,056	102,831,259	+53,879,203
Docks, wharves, piers, etc.....	7,693,748	7,226,246	10,540,270	+3,314,024
All other engineering, etc.....	20,496,195	23,381,995	35,936,231	+12,554,236
<b>Totals, Engineering Construction.....</b>	<b>158,907,665</b>	<b>236,490,737</b>	<b>417,664,643</b>	<b>+181,173,906</b>
Electrical work.....	14,192,659	20,881,652	24,264,136	+3,382,484
Plumbing, heating and air-conditioning.....	30,248,652	46,030,206	53,405,463	+7,375,257
Brick, masonry and concrete.....	4,843,571	7,265,921	10,302,171	+3,036,250
Carpentry.....	4,478,934	6,266,898	9,783,776	+3,516,878
Painting, decorating and glazing.....	13,695,440	19,311,635	23,238,034	+3,926,399
Lathing, plastering and stucco.....	1,895,120	2,687,108	4,091,504	+1,404,396
Sheet metal work and metal roofing.....	5,772,234	8,949,924	10,304,010	+1,354,086
Other roofing.....	4,209,906	5,544,855	6,101,768	+556,913
Other trades.....	17,243,070	24,824,927	38,997,119	+14,172,192
<b>Totals, Building Trades.....</b>	<b>96,579,586</b>	<b>141,763,126</b>	<b>180,487,981</b>	<b>+38,724,855</b>
<b>Grand Totals.....</b>	<b>543,579,833</b>	<b>868,661,403</b>	<b>1,256,535,677</b>	<b>+387,874,274</b>

**Snow-melter,**  
designed for use  
where snow must  
be finally dis-  
posed of in rail-  
way terminal  
areas, clears the  
yards quickly  
and efficiently.  
Pronged teeth  
whip the snow  
from the tracks  
and conveyor  
belts carry it to  
the 16,000 gal.  
melting tank at  
the rear.





Construction work (top) on the new grandstand in the Canadian National Exhibition grounds Toronto, which was completed (below) in time for the 1948 exhibition. The seating capacity of the stand is 22,000 for stage shows and 23,000 for sports events.



**Building Permits.**—Figures for the anticipated cost of building represented by building permits issued have normally been supplied by the Dominion Bureau of Statistics on the basis of 204 selected municipalities. A new series is being prepared on the basis of some 500 municipalities that have building by-laws requiring a permit before the erection of a structure is undertaken. This series will appear in future editions of the Handbook.

**Railways.**—The expenditures of railways, steam and electric, on road, maintenance of way and structures and equipment are not included in the figures for the construction industries given above and are therefore summarized here. For steam railways expenditures for these purposes in 1946 amounted to \$238,398,950 compared with \$218,826,950 in 1945. For electric railways, the net in 1946 was \$11,257,268 as against \$13,969,069 in 1945.

# Labour

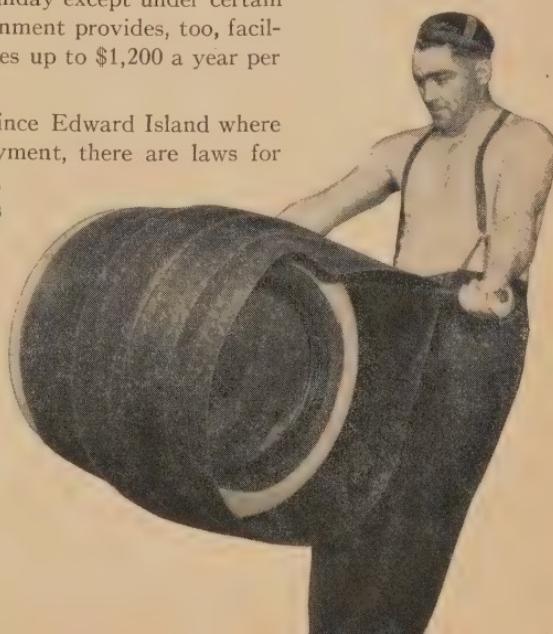
**M**ODERN labour is protected by law and the organizations that labour has itself set up or called into existence. This chapter treats of working conditions, the number of strikes and lockouts that take place, wage rates, hours of labour, and unemployment figures.

Both the Parliament of Canada and the Provincial Legislatures have enacted laws for the protection of workers in their place of employment. The Federal and Provincial Departments of Labour administer these and other labour laws but special boards are responsible for workmen's compensation statutes and Mines Departments administer the Acts protecting miners.

Co-operation between the Federal Government and the Provinces before and during the War has resulted in fairly uniform principles being applied throughout Canada for the settlement of industrial disputes. Federal financial assistance has stimulated vocational training and apprenticeship in all provinces.

The Government of Canada provides unemployment insurance through a nation-wide system of employment offices which are concerned with both the payment of claims and the placing of workers in jobs. The Government regulates working conditions of its own employees and provides compensation for them in case of accident during employment. Observance is required of specified wage-and-hour conditions by contractors for Federal public works and equipment and supplies. Federal laws govern employment on railways and in the mercantile marine, permit peaceful picketing, and prohibit employment on Sunday except under certain conditions. The Federal Government provides, too, facilities for the purchase of annuities up to \$1,200 a year per individual (*see p. 85*).

In all provinces, except Prince Edward Island where there is little industrial employment, there are laws for the inspection of mines, factories, shops, and other work-places and for the regulation of wages, hours of work, employment of women and children, apprenticeship and workmen's compensation. Laws have also been enacted to protect freedom of association, to require employers to bargain with the representatives of employees or



with trade unions and to prohibit any strike or lockout until after an inquiry. Prince Edward Island in 1945 enacted laws to promote collective bargaining and to prohibit the employment in industry of children under 15 years of age.

## *Labour Organizations*

Before the middle of the nineteenth century there were in Canada only a few local unions of craftsmen. After 1850, organization was stimulated by increased industrial activity and by the marked progress of the union movement in both Great Britain and the United States. The recently formed national unions in the United States, beginning with the printers and moulders, began to accept the "cards" of Canadian union men seeking work in that country and the Canadian unions took in United States craftsmen. The next step was for the Canadian local unions to affiliate with the national unions. Thus began the "international unions", the Canadian membership of which makes up so large a part of Canadian trade unions. At the present time, the majority of local trade unions are branches of international organizations, either craft or industrial, with headquarters in the United States.

Trade unions in Canada are now divided into four principal groups: (1) those affiliated in Canada with the Trades and Labour Congress of Canada and in the United States with the American Federation of Labor; (2) those affiliated with the Canadian Congress of Labour and in the United States with the Congress of Industrial Organizations; (3) those unions in the Province of Quebec that are linked with the Canadian and Catholic Confederation of Labour; and (4) the railroad brotherhoods of men in train and engine service in the United States and Canada.

At the end of 1947 there were 912,124 union members reported to the Department of Labour, an increase of 80,427 over the 1946 figure. The number of local unions in Canada increased from 4,635 in 1946 to 4,956 in 1947.

According to the reports submitted by the headquarters of the national and international unions, supplemented by reports submitted by the congresses and federations of unions and also by independent local unions, there were, at the end of 1947, 403,003 members of unions affiliated with the Trades and Labour Congress, 329,058 affiliated with the Canadian Congress of Labour and 91,026 with the Canadian and Catholic Confederation of Labour.

**Unemployment in Trade Unions.**—Reports from trade unions indicated little change in the percentage of unemployment among their members during 1947; the average for that year was 1·3 and that for 1945 was 1·4 p.c. The only years since the record was begun in 1919 showing a lower percentage of unemployment were 1943 and 1944 when wartime production was at its peak. At the end of June, 1948, reports from 2,444 local branches of labour organizations, of which the total membership was 482,859, showed 6,084 or 1·3 p.c. as unemployed; on the corresponding date in 1947 the percentage was 0·8 but increased to 1·7 at the end of the year. The highest level of unemployment indicated by union returns was at the end of 1932 and at the beginning of 1933 when the percentage was 25·5, while the period of lowest unemployment was the summer of 1944 when the percentage was 0·3.



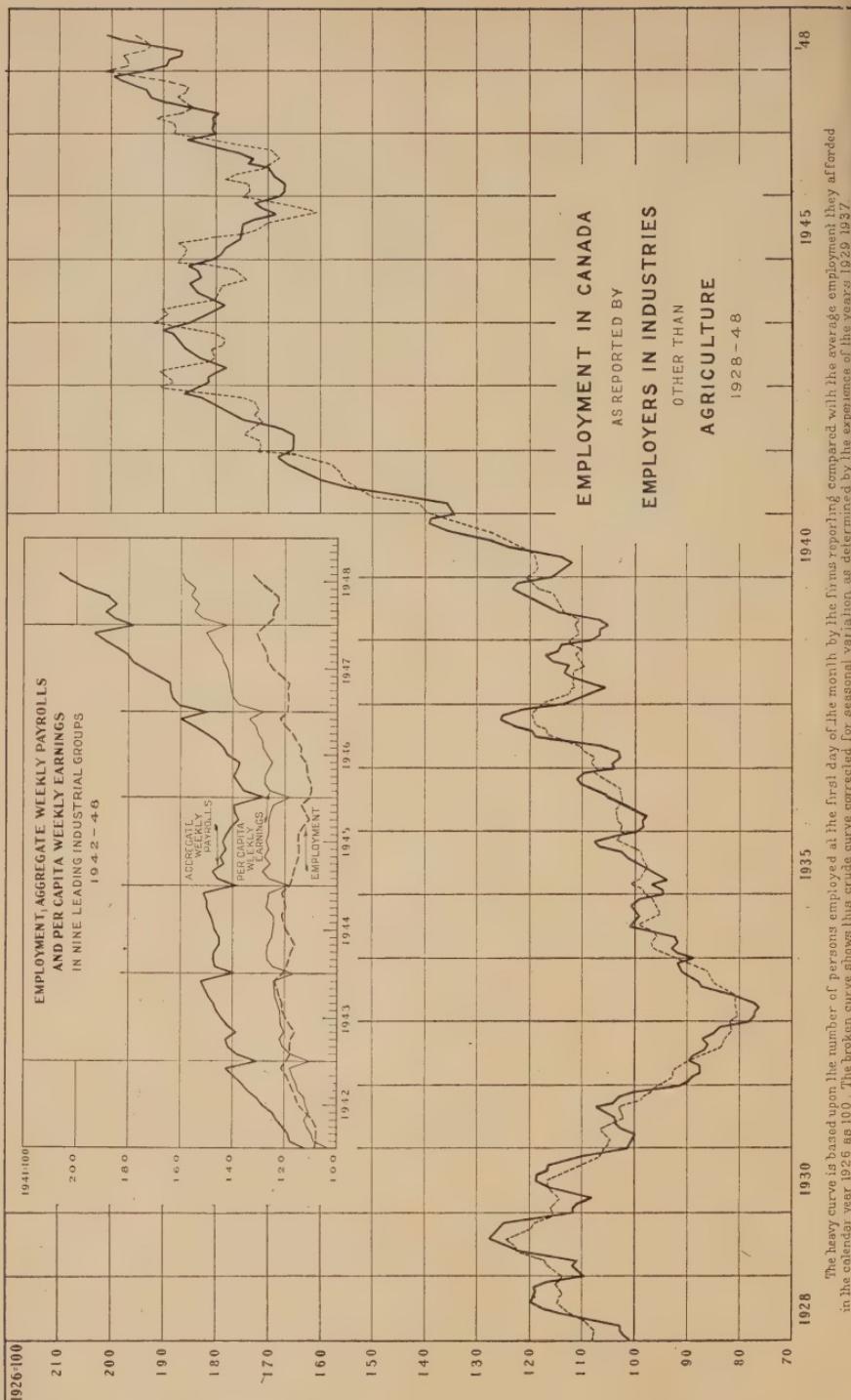
*Section gangs maintain railway roadbeds with the aid of the latest equipment. This power-jack lifts the rails to the required height, permitting the gravel to be shovelled underneath.*

### Collective Bargaining and Conciliation Legislation

The Industrial Relations and Disputes Investigation Act came into effect on Sept. 1, 1948. The new legislation replaced both the Industrial Disputes Investigation Act which had been in force from 1907 down to March, 1944, and the Wartime Labour Relations Regulations, P.C. 1003, which had succeeded the Industrial Disputes Investigation Act in 1944.

The new Act applies only to industries within Dominion jurisdiction, i.e., navigation, shipping, interprovincial railways, canals, telegraphs, steamship lines and ferries both interprovincial and international, aerodromes and air transportation, radio broadcasting stations, and works declared to be for the general advantage of Canada. However the Act provides that provincial authorities, if they so desire, may enact similar legislation for application to employees within provincial jurisdiction and make mutually satisfactory arrangements for the administration of such legislation by the Dominion authorities.

The Minister of Labour and the Canada Labour Relations Board jointly administer the provisions of the Act. The Minister administers those provisions providing for the appointment of Conciliation Officers, Conciliation Boards, Industrial Inquiry Commissions, for consent to prosecute, and for the making of complaints that the Act has been violated or that a party has



The heavy curve is based upon the number of persons employed at the first day of the month by the firms reporting compared with the average employment they afforded in the calendar year 1926 as 100. The broken curve shows this crude curve corrected for seasonal variation as determined by the experience of the years 1929-1937.

failed to bargain in good faith. The Canada Labour Relations Board, which is composed of four representatives each of organized labour and management and a Chairman and Vice-Chairman, administers those portions of the Act that concern the certification of bargaining agents, the writing of a procedure into a collective agreement for the final settlement of disputes concerning the meaning or violation of such agreement, and the investigation of complaints made to the Minister that a party has failed to bargain collectively.

The legislation also provides for the right of free association of employees and employers, for the safeguarding of that right by prohibiting unfair labour practices, for compulsory collective bargaining between trade unions and employees upon notice following certification or upon notice to negotiate the renewal of an agreement. Where the parties are unable to reach agreement by direct negotiations, conciliation services by officers and boards may be provided. Strikes and lockouts and the taking of strike votes are prohibited until the legislative procedures of negotiation and conciliation laid down in the Act have either been satisfied or the Minister has refused to appoint a Conciliation Board. Where a Board has been appointed, a strike or lockout may take place seven days after the report of the Board has been given to the Minister of Labour. Where the Minister neglects to appoint a Board, a strike or lockout may take place after 15 days or earlier if the Minister gives notice of refusal to appoint a Board.

Enforcement of the Act is by way of court prosecution which can only be instituted by consent of the Minister.

### *Strikes and Lockouts*

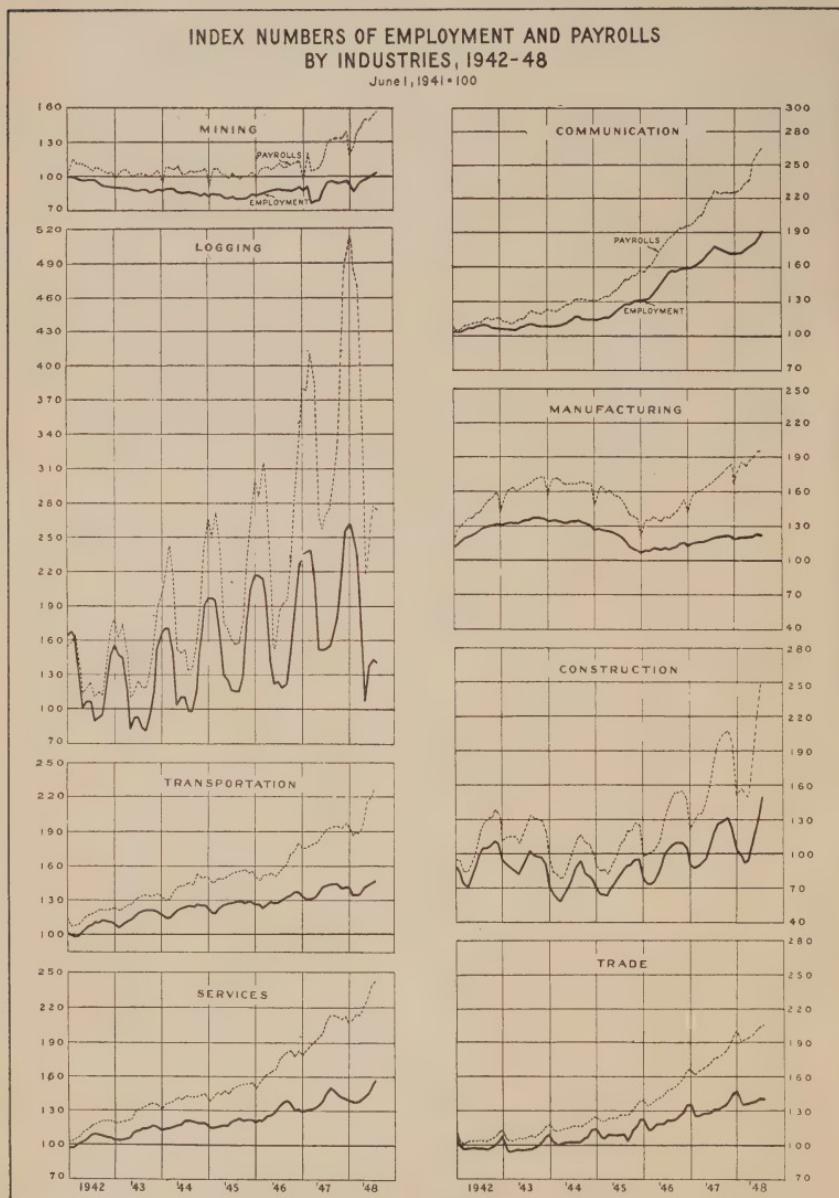
Improvement was shown in industrial relations in 1948 as compared with 1947. The number of strikes and lockouts, the numbers of workers involved and the time-loss in man-working days declined steadily since the peak year of 1946, when 4,500,000 days were lost; in 1947, 2,400,000 days were lost. During the first eight months of 1948 there were 104 strikes and lockouts, with 29,383 workers involved and a time-loss of 657,950 days; in the first eight months of 1947 there were 157 strikes, involving 66,798 workers and a time-loss of 1,581,319 days; and in the first eight months of 1946 there were 180 strikes, with 127,417 workers involved and a time-loss of 3,409,350 days. Based on the number of non-agricultural wage and salary workers in Canada, the time lost in the first eight months of 1948 was one-tenth of one per cent of the estimated working-time. For the same period of 1947 it was one-quarter of one per cent. A strike of coal miners in the western coal fields together with two small coal-mining strikes in the Maritime Provinces was responsible for 44 p.c. of the total time lost in the 1948 period.

### *Employment in 1948*

Industrial employment during the first nine months of 1948 was maintained at a considerably higher level than in the same period of any other year on record. The index of employment (based on the 1926 average as 100) for the period from Jan. 1 to Sept. 1 averaged 193·1 compared with 184·7 for the first nine months of 1947, and 170·3 for the same period of 1946.

The fact that the percentage increase in the average index during these months in 1948 over 1947 was less than the advance shown in the same period in 1947 over 1946 indicated some levelling-off in post-war expansion.

In spite of a developing buyers' resistance to the high price of commodities, there was a heavy demand for goods and services in the months under review; on the other hand, there were fewer handicaps to industry, such as shortages





*Life has changed for the logger. The trend towards mechanization, permitting year-round operations, and better living and recreation facilities have done much to stabilize labour conditions.*

*Loggers' houses are moved bodily by tractor to a new site. Bright, up-to-date mobile buildings have replaced the rough log cabins which were abandoned when an area was 'logged out'.*



of materials and labour, with the result that activity in most lines was maintained at an unusually high level. In the field of industrial relations there was a marked improvement, the amount of time lost as a direct result of strikes in the first nine months of 1948 being less than half that reported in the same period in 1947.

The chart on p. 244 shows the trend of employment during the first nine months of 1948 in establishments employing 15 or more employees in the eight leading non-agricultural industries: manufacturing, logging, mining, communications, transportation, construction and maintenance, trade, and services, consisting mainly of hotels, restaurants, dry-cleaning establishments and laundries. The seasonal recession at Jan. 1 was slightly greater than that of one year earlier, but was below the average at that date

in the experience of the period since 1920. The movement continued retrogressive until May 1, the index declining by 3·7 p.c. in the first five months of the year. Shortages of gas and electric power during the winter resulted in many lay-offs in the industrial areas of southern Ontario, while the strike in the western coal fields had an adverse effect on employment in Alberta and British Columbia during the latter half of January and the early part of February. The curtailment in the index noted at May 1 of 1948 was the fourth indicated at the same date of the past five years, although in the pre-war period an increase in employment was usual in the late spring. From May 1, which was the low point in the period under review, to Sept. 1, when industrial employment reached an all-time maximum, the index increased by 8·2 p.c., rising from 186·5 to 201·8.

The increase in the index number of employment between Jan. 1 and Sept. 1, 1948, amounted to 4·2 p.c. accompanied by an advance of 17·3 p.c. in the index number of weekly payrolls. The much greater rise in payrolls than in employment was indicative of continuing salary and wage adjustments in large numbers of establishments, as well as additions to cost-of-living bonuses as prices continued their upward movement. At Sept. 1, 1948, the average weekly earnings of salaried employees and wage-earners employed by over 18,800 leading firms in the major industrial divisions, at \$40.86, were the highest on record, exceeding by \$4.10 or 11·2 p.c. the per capita figure reported at Sept. 1, 1947.

The employment indexes for all the provinces at Sept. 1, 1948, were higher than those for the same date of the preceding year and, except in New Brunswick, were above those recorded for Jan. 1, 1948. In that Province, the general index number declined by 5·3 p.c. in the nine-month period; gains in employment in manufacturing and construction and a few other classes were not great enough to offset the substantial declines recorded in logging and transportation. As in Canada as a whole, the increases in employment during the first nine months of 1948 in most provinces were somewhat less than those noted in the same period of 1947, suggesting some curbing in the rate of post-war expansion. In Manitoba and Alberta, however, greater activity was indicated in the period under review than in the first nine months of 1947.

During 1948, especially marked improvement between Jan. 1 and Sept. 1 was made in Alberta and British Columbia; seasonal activity in construction accounted for a large part of the expansion in those provinces, as in other areas. In Ontario, the substantial decline in logging between Jan. 1 and Sept. 1, following a period of unusually great seasonal activity, was little more than offset by the gains in other industries, with the result that there was a general increase of only 1·2 p.c. in the index number of employment in the nine months. It may also be noted that labour-management disputes in the automobile-parts industry had a depressing effect on the index in the later months of this period.

Marked improvement was noted in employment in all the principal cities with the exception of Toronto, where little change was indicated between Jan. 1 and Sept. 1. The greatest proportional expansion in the period under review was reported in Quebec, the index of employment increasing by 7·4 p.c. in the nine months. The indexes for Ottawa, Windsor and Vancouver rose by 7·1 p.c., 6·2 p.c. and 6·1 p.c., respectively, in the same period.

In manufacturing, the index of employment increased by 3·0 p.c. in the year ended Sept. 1, 1948, compared with a rise of 5·7 p.c. in recorded employment generally in the non-manufacturing industries for which data are available. The gain in these main groups was considerably less than that in the year ended Sept. 1, 1947, when the increases in employment in manufacturing amounted to 8·6 p.c. and that in the non-manufacturing industries to 13·5 p.c. Thus the levelling process appeared to operate with particular force in the manufacturing industries, although the rate of expansion in the non-manufacturing classes generally was also less than that reported in the earlier post-war years.

**Distribution of Persons in Recorded Employment in Manufacturing at Sept. 1, 1939, 1943 and 1946-48**

Industrial Group	1939	1943	1946	1947	1948
Durable manufactured goods.....	38·7	56·7	45·2	46·4	46·2
Non-durable manufactured goods.....	58·2	41·7	52·5	51·0	50·7
Central electric stations.....	3·1	1·6	2·3	2·6	3·1
<b>All Manufacturing Industries.....</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>

The above table shows the changes in the distribution of persons employed in leading manufacturing establishments during and since the War. There were increases in the numbers of employees on staff in all groups, but the greatest proportional advance took place in the electric light and power industry, in which the index of employment gained by 17·3 p.c. in the year ended Sept. 1, 1948. The employment index in the remaining manufacturing industries increased by only 2·3 p.c. in the same period. Thus the distribution of persons in recorded employment in the three main divisions of manufacturing was more similar in 1948 to that indicated in 1939 than was the case in any immediately preceding year. The variation as compared with 1943, when factory employment reached its wartime peak, is also interesting.

At Sept. 1, 1948, employment in each of the main non-manufacturing industries, with the exception of logging and mining, reached new all-time peaks for that time of year. Employment in the logging industry reached its maximum on record at Jan. 1, 1948, when the index was 414·3, but from Mar. 1 to Sept. 1, the volume of employment in logging generally was considerably below that recorded in the same months in 1947. The index of employment for mining, at 181·5 at Sept. 1, 1948, was only slightly below the previous maximum for that time of year, indicated in 1941, and was otherwise the highest in the record for Sept. 1. The expansion of employment in mining has been hampered by shortages of skilled labour; the increase in the number of employees since the end of the War has been gradual.

As might be expected, construction showed the largest proportional increase in employment in 1948. The index of employment, at 201·5 at Sept. 1, 1948, was 12·0 p.c. above that recorded at the same date in the preceding year. A large share of the increase was reported by the leading establishments in the highway construction division. Further improvement

was also reported in the other main non-manufacturing groups, namely transportation, communications, hotels and restaurants and laundries and dry-cleaning plants, trade and financial institutions.

While the general index of employment in the eight leading industries increased by 4·5 p.c. between Sept. 1, 1947, and Sept. 1, 1948, the number of women employed by the reporting establishments in these industries increased by 3·3 p.c. and the number of male workers by 4·4 p.c. The proportion of women employed by reporting establishments declined slightly in the year under review, from 208 per 1,000 at Sept. 1, 1947, to 206 per 1,000 at Sept. 1, 1948. Proportionately, the largest decrease in the eight leading industries was in the service industries, in which the ratio of women workers declined from 534 per 1,000 a year earlier, to 518 per 1,000 at Sept. 1, 1948. Further reductions in the proportions of women employees were also recorded in manufacturing, transportation and trade in the period under review.

### *Unemployment Insurance*

The Unemployment Insurance Act, 1940, providing a co-ordinated program of unemployment insurance and employment offices, is administered by an Unemployment Insurance Commission, consisting of a Chief Commissioner and two Commissioners (one appointed after consultation with employees and one after consultation with employers).

All employed persons are insured unless specifically excepted. Exceptions include certain employments such as agriculture, fishing, domestic service, school teaching, and those employed on other than an hourly, daily, piece or mileage basis with annual earnings exceeding \$3,120. Persons employed on an hourly, daily, piece or mileage basis are insured regardless of their earnings level. On June 30, 1948, the number of registered employers with insured employees was 206,190 and the number of insured persons registered was 3,023,067.

Employers and their insured workers make contributions according to a graded scale, but in the country as a whole they contribute approximately equal amounts. The Federal Government adds one-fifth of the total employer-employee contributions and, in addition, pays the cost of administration. War veterans who enter insured employment and make contributions for at least 15 weeks in any year are deemed to have been in such employment throughout the period of their war service and contributions are paid on their behalf by the Government.

Rates of contribution and benefit under the Unemployment Insurance Act are related to the insured person's earnings. Weekly rates of contribution and selected weekly benefit rates are set forth in the following table. Contributions are made (usually) by means of the employer attaching a stamp in the employee's book. The stamp combines the employer's and employee's shares (the employer then deducting the employee's share from his earnings) and the weekly stamp is perforated so that it can be divided into six equal parts for the purpose of recording contributions for periods of less than a week. The daily rate of contribution is one-sixth of the weekly rate.

The daily rate of benefit for an insured person is calculated on the basis of his daily average contribution during the most recent 180 days contributions in the two years immediately preceding the claim. The daily rate

of benefit for a claimant having no dependent is 34 times, and for a claimant with a dependent 10 cents less than 45 times this average. Daily benefit rates are adjusted to the nearest five cents. The weekly rate is six times the daily rate. The weekly rates of benefit presented in the table are calculated on the assumption that the beneficiary has contributed at the corresponding rate shown in the table during the preceding 180 contribution days.

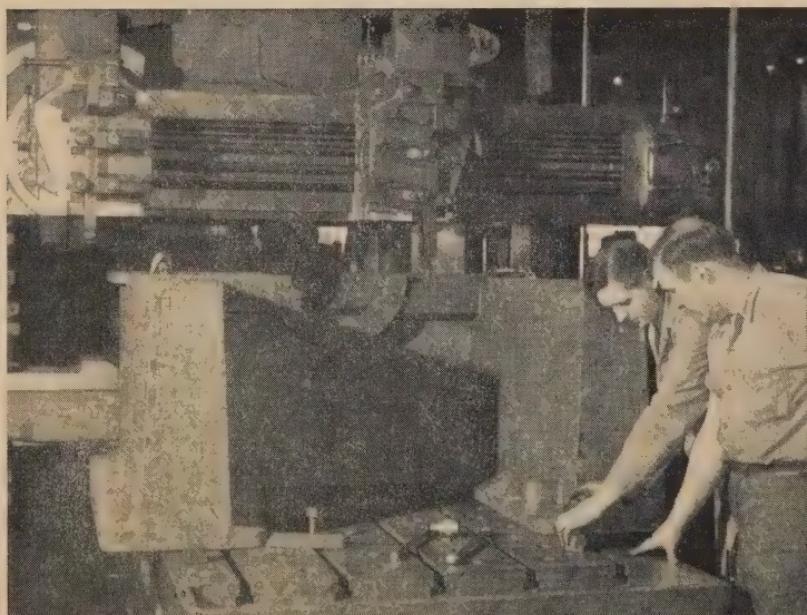
### **Weekly Rates of Contribution and Benefit Under the Unemployment Insurance Act**

(Effective Oct. 4, 1948)

Class	Earnings in a Week	Weekly Contributions		Denomi-nation of Stamp	Weekly Benefits	
		Em-ployer	Em-ployed Person		Person Without a Dependent	Person With a Dependent
0	While earning less than 90 cents a day or while under 16 years of age.....	cts.	cts.	cts.	\$	\$
		91	91 (paid on his behalf by employer)	18	1	1
1	Earning \$5.40 to \$7.49 in a week...	18	12	30	4.20	4.80
2	Earning \$7.50 to \$9.59 in a week...	24	15	39	5.10	6.30
3	Earning \$9.60 to \$11.99 in a week..	24	18	42	6.00	7.50
4	Earning \$12.00 to \$14.99 in a week.	24	21	45	7.20	9.00
5	Earning \$15.00 to \$19.99 in a week.	24	24	48	8.10	10.20
6	Earning \$20.00 to \$25.99 in a week.	30	30	60	10.20	12.90
7	Earning \$26.00 to \$33.99 in a week..	36	36	72	12.30	15.60
8	Earning \$34.00 or more in a week...	42	42	84	14.40	18.30

<sup>1</sup> Workers in this class make no contributions and are not eligible for benefit. They may, however, accumulate benefit rights on the basis of employer contributions.

From July 1, 1941, to June 30, 1948, \$594,589,706 was deposited in the Unemployment Insurance Fund. This amount included contributions from employees, employers and the Government, with interest. Employer and employee contributions to the fund were \$463,657,098 and Federal Government contributions \$92,733,927.



**Apprentice machinist receiving instruction from an experienced tradesman in the technique of setting up a large casting on an open-side planer. On-the-job training of apprentices is conducted in many industries.**

During the first six months of 1948, 355,019 initial and renewal claims were filed in Local Offices, 288,220 claims were considered entitled to benefit, and benefit payments amounted to \$26,998,723. During the calendar year 1947 there were 442,854 initial and renewal claims filed, 322,333 claims were considered entitled to benefit, and benefit payments totalled \$31,994,772. In 1946, 488,667 initial and renewal claims were filed, 382,731 claims were considered entitled to benefit, and the amount of benefit paid was \$51,045,742.

*Persons Insured under the Unemployment Insurance Act,  
by Age Groups and Sex, as at Apr. 1, 1947*

(Based on 10 p.c. Sample)

Age Group	Male	Female	Age Group	Male	Female
	No.	No.		No.	No.
Under 20.....	158,860	140,640	60-69.....	106,280	8,880
20-29.....	415,770	239,470	70 or over.....	16,300	730
30-39.....	364,530	113,380	Not given.....	103,970	30,640
40-49.....	277,090	71,270			
50-59.....	200,230	32,160	All Ages.....	<b>1,643,030</b>	<b>637,170</b>

*Wage Rates and Hours of Labour*

Index numbers of wage rates, compiled by the Department of Labour, show the general movement of wage rates for the main industrial groups as



*Leisure hours for the worker mean time to follow sports and hobbies. This Ontario miner, an enthusiastic gardener, displays excellent gladioli grown in his own garden.*

well as for individual industries, but cannot be used to compare rates in one industry with those in another. The statistics are average straight-time wage rates or average straight-time piece-work earnings and therefore do not include overtime or other premium payments. From 1930 to 1933 there was a considerable decrease in wage rates, but increases have been general each year since that time. During the period 1939-47, the rise in wage rates amounted to 73.7 p.c.

### Index Numbers of Wage Rates for Certain Main Groups of Industries, 1901-47

(Rates in 1939 = 100)

Year	Logging	Coal Mining	Metal Mining	Manufacturing	Construction	Water Transport	Steam Railways	Electric Railways	Telephones	General Average <sup>1</sup>
1901...	51.4	47.4	61.2	—	35.3	43.9	33.7	32.8	—	38.1
1905...	57.0	49.5	58.7	—	42.8	44.7	36.5	37.7	—	43.1
1910...	64.0	54.0	62.5	—	50.9	48.4	44.1	44.0	—	49.9
1915...	61.1	58.7	66.2	50.1	59.4	54.0	49.8	50.2	—	53.2
1920...	142.5	113.3	102.9	102.4	106.0	105.2	108.2	99.7	92.2	107.0
1925...	95.2	96.1	93.3	92.3	99.8	90.4	91.2	96.4	89.1	93.8
1930...	97.5	97.1	93.9	95.5	119.1	97.2	100.0	102.3	94.7	99.9
1935...	73.1	95.0	92.6	87.0	93.6	81.1	90.1	94.3	93.0	88.4
1936...	80.9	95.1	94.9	89.1	94.2	82.4	90.1	95.2	93.8	90.0
1937...	93.9	95.6	99.1	96.1	96.9	92.0	96.0	97.8	98.5	96.7
1938...	101.8	100.0	99.6	99.2	99.2	99.1	100.0	99.4	99.7	99.6
1939...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1940...	104.9	102.1	102.8	104.3	104.5	105.2	100.0	103.9	101.3	103.9
1941...	114.0	109.4	112.2	115.2	111.6	113.3	109.4	109.1	106.4	113.1
1942...	125.9	113.1	118.7	125.5	118.6	125.8	114.8	115.8	112.0	122.5
1943...	143.1	124.8	123.1	136.8	127.7	138.8	125.5	121.2	121.9	133.7
1944...	146.1	146.0	125.2	141.4	129.6	142.2	125.5	125.7	122.4	137.9
1945...	153.3	146.2	128.2	146.5	131.1	144.6	125.5	126.6	125.6	141.8
1946...	167.4	146.7	135.7	161.5	143.9	162.3	142.3	139.5	125.2	155.2
1947...	195.1	166.7	157.7	183.3	155.0	183.8	142.3	162.3	132.2	173.7

<sup>1</sup> Includes laundries.

In 1947, average standard weekly hours of labour in manufacturing, weighted by the number of male workers, were as follows: primary textile products, 47.4; clothing, 41.5; rubber, 46.3; pulp and its products, 47.6; paper boxes, 45.9; printing and publishing, 41.2; lumber and its products, 46.8; edible plant products, 47.8; edible animal products, 46.7; fur products, 42.3; leather and its products, 45.5; iron and its products, 45.2; tobacco products, 45.2; brewery products, 44.1; and electrical products, 43.2. Average hours in construction were 44.4, in wholesale trade 43.7, and in retail trade 44.7. Weekly hours in logging in the British Columbia coastal area were 40, and in Eastern Canada the majority worked 60 hours. Coal-mining in Western Canada was on a 40-hour schedule generally and in Eastern Canada, 48 hours. In metal mining, the 48-hour week was usual in all provinces except British Columbia where the 44-hour week prevailed.

Towards the end of 1944, a statutory 48-hour week became effective in Ontario, as it had been in British Columbia for some years. In 1946, however, British Columbia adopted a 44-hour week, and the next year Saskatchewan stipulated that no person could be employed for more than 44 hours unless an over-time rate of time and one-half was paid. These statutes exempt a few classes and permit exceptions to be made by the administrative authorities.

## Vocational Training

The Training Branch of the Department of Labour is responsible for the administration of the Vocational Training Co-ordination Act, 1942, which makes available to the provinces moneys for various types of training under certain conditions. Agreements between the Federal and the Provincial Governments set out the conditions to be observed. The Director of Training at headquarters is assisted by a Regional Director in each province. An Advisory Council representing workers, veterans, employers, etc., advises the Minister on policy and procedure in connection with training projects.

Youth Training Agreements, for young people between 16 and 30 years, are in effect with all provinces, and the Federal appropriation of \$425,000 is distributed among them, expenditure being shared equally by the Federal and Provincial Governments. Financial assistance is provided for university students and nurses; in addition, thousands of young people, particularly in rural areas, have benefited by training in agricultural pursuits."

There are Apprenticeship Acts in all provinces. In seven provinces apprenticeship training in skilled trades is aided by the Federal Government under agreements that have been in effect for nearly four years. Over 11,700 apprentices were registered on June 30, 1948. The funds made available by the Federal Government are used to provide class training of a practical and technical nature, mainly in the building and motor-vehicle repair trades.

Youth Training, Veterans Training, Training of Supervisors and of Unemployed Civilians were consolidated under the "Vocational Training Agreement", effective from Apr. 1, 1948. The Federal and Provincial Governments share equally in all approved expenditures except for Veterans Training, which is all borne by the Federal Government. This agreement has been signed by all provinces.

Vocational and technical training on the secondary school level is being assisted in each province for a ten-year period. A \$10,000 annual grant is made to each province and, in addition, if the province appropriates an amount equal to the Federal contribution, a sum of \$1,910,000 is available to the provinces each year. This amount is divided in proportion to the population in each province between the ages of 15 and 19 years. On the same basis, a special Federal contribution of \$10,000,000 has been allotted for capital expenditures incurred prior to Mar. 31, 1952, for buildings and equipment.

The vocational and pre-matriculation training of former members of the Armed Forces was the largest task of Canadian Vocational Training. Enrolment from the inception of the program to Aug. 31, 1948, totalled over 134,000. About 800 were still under training on Sept. 1, 1948.

## National Employment Service

The Unemployment Insurance Commission operates a free employment service under authority of the Unemployment Insurance Act, 1940.

In the first eight months of 1948, Employment Offices received 1,050,426 applications for employment, were notified of 789,749 vacancies and effected 461,567 placements. During the same period of 1947, 1,055,898 applications, 1,077,196 vacancies and 511,488 placements were reported.

# Public Finance

**T**HIS section presents public finance statistics for all levels of government in Canada—Dominion, Provincial and Municipal. It

should be noted that, under the first heading, the revenue and expenditure tables exclude inter-governmental transfers, subsidies, and payments from the Dominion to the provinces under the Dominion-Provincial Taxation Agreement Act. In addition, the revenues and expenditures are shown on a "net" basis, shared-cost contributions of other governments, institutional revenue and certain other sales of commodities and services, and interest revenue being treated as offsets to corresponding expenditures. Other main headings deal in more detail with the salient aspects of Dominion, Provincial and Municipal finance.

## *Combined Statistics for All Governments*

**Combined Revenues and Expenditures.**—Combined revenues of all governments exclusive of inter-governmental transfers amounted to \$3,390,000,000 for 1945, or over 328 p.c. of the 1939 total of \$1,033,000,000. Expenditures, however, increased during this period to \$5,384,000,000 for 1945, equal to 437 p.c. of the \$1,231,000,000 total for 1939. In the same period the gross national product rose from \$5,598,000,000 in 1939 to \$11,732,000,000 in 1945, when it amounted to 210 p.c. of the 1939 figure. A comparison of the index of change in these three factors (using 1939 as the base year) which reflect the rapid expansion and acceleration in governmental finances as a whole, as well as in the general economy of the country, during the war years is as follows:—

Year	Gross National Product	Total Revenues	Total Expenditures
1939 . . . . .	100	100	100
1941 . . . . .	151	196	189
1942 . . . . .	188	261	381
1943 . . . . .	202	301	448
1944 . . . . .	212	292	444
1945 . . . . .	210	328	437

Prior to the War, the revenues and expenditures of Provincial and Municipal Governments together exceeded those of the Dominion. In 1939, revenues of the Dominion accounted for only 46 p.c. of the combined total, while in 1945 they represented 80 p.c. of the total; and expenditures of the Dominion correspondingly changed from 46 p.c. of the total for 1939 to 87 p.c. of the total for 1945. This is accounted for by the fact that the burden of financing Canada's war effort fell upon the Federal Government. At the same time, the aim of the Federal Government was to finance as large a part as possible of the cost of carrying on a total war effort out of current revenues.



*Chlorination Room, Royal Canadian Mint, where gold is refined and poured into 400 oz. trade bars.*

The period from 1939 to 1945 also brought about a change in the relative weight of various Dominion revenues. In the year 1939 the greatest single source of revenue was the general sales tax (\$137,446,000), followed by customs duties and other import taxes (\$106,819,000), and corporate income taxes (\$77,920,000). However, in the year 1945 personal income tax was the greatest source of revenue (\$686,586,000), followed by corporate income taxes (\$644,530,000), general sales tax (\$212,248,000), and customs duties and other import taxes (\$171,613,000).

#### *Comparative Dominion, Provincial and Municipal Revenues, Selected Years, 1933-45*

NOTE.—Figures are for fiscal years ended nearest to Dec. 31. Inter-governmental transfers, subsidies and payments under the Dominion-Provincial Taxation Agreement Act are excluded. SOURCE: Comparative statistics of Public Finance prepared for the Dominion-Provincial Conference on Reconstruction.

Year	Dominion	Provincial and Municipal			Total	
		Provincial	Municipal	Total		
		\$'000	\$'000	\$'000	\$'000	
1933.....	278,181	133,252	294,068	427,320	705,501	
1937.....	460,544	221,397	304,161	525,558	986,102	
1939.....	480,027	236,223	316,964	553,187	1,033,214	
1941.....	1,389,433	301,842	331,206	633,048	2,022,481	
1942.....	2,125,745	240,098	330,748	570,846	2,696,591	
1943.....	2,522,414	250,646	340,690	591,336	3,113,750	
1944.....	2,402,447	262,269	351,148	613,417	3,015,864	
1945.....	2,720,514	316,621	353,158	669,779	3,390,293	

**Comparative Dominion, Provincial and Municipal Revenues,  
Selected Years, 1933-45—concluded**

Year	Dominion	Provincial and Municipal			Total
		Provincial	Municipal	Total	
Percentage Distribution					
1933.....	39.4	18.9	41.7	60.6	100.0
1937.....	46.7	22.5	30.8	53.3	100.0
1939.....	46.5	22.8	30.7	53.5	100.0
1941.....	68.7	14.9	16.4	31.3	100.0
1942.....	78.8	8.9	12.3	21.2	100.0
1943.....	81.0	8.1	10.9	19.0	100.0
1944.....	79.7	8.7	11.6	20.3	100.0
1945.....	80.2	9.4	10.4	19.8	100.0
Index of Change (1939 = 100)					
1933.....	57.9	56.4	92.7	77.2	68.2
1937.....	95.9	93.7	95.9	95.0	93.6
1939.....	100.0	100.0	100.0	100.0	100.0
1941.....	289.4	127.7	104.5	114.4	195.7
1942.....	442.8	101.6	104.3	103.1	260.9
1943.....	525.4	106.1	107.4	106.8	301.3
1944.....	500.5	111.0	110.8	110.9	291.9
1945.....	566.7	134.0	111.4	121.1	328.1

**Comparative Dominion, Provincial and Municipal Expenditures  
(Capital and Current), Selected Years, 1933-45**

NOTE.—See headnote to preceding table.

Year	Dominion	Provincial and Municipal			Total
		Provincial	Municipal	Total	
Expenditures					
	\$'000	\$'000	\$'000	\$'000	\$'000
1933.....	389,587	218,864	301,770	520,634	910,221
1937.....	444,599	359,689	296,288	655,977	1,100,576
1939.....	571,198	354,883	304,580	659,463	1,230,661
1941.....	1,718,787	311,260	292,517	603,777	2,322,564
1942.....	4,102,441	293,637	295,128	588,765	4,691,206
1943.....	4,907,475	300,997	300,579	601,576	5,509,051
1944.....	4,803,049	339,531	316,825	656,356	5,459,405
1945.....	4,679,136	370,875	334,135	705,010	5,384,146
Percentage Distribution					
	42.8	24.1	33.1	57.2	100.0
1933.....	40.4	32.7	26.9	59.6	100.0
1937.....	46.4	28.8	24.8	53.6	100.0
1939.....	74.0	13.4	12.6	26.0	100.0
1941.....	87.4	6.3	6.3	12.6	100.0
1942.....	89.1	5.5	5.4	10.9	100.0
1943.....	88.0	6.2	5.8	12.0	100.0
1944.....	86.9	6.9	6.2	13.1	100.0
Index of Change (1939 = 100)					
	68.2	61.7	99.1	78.9	74.0
1937.....	77.8	101.4	97.3	99.5	89.4
1939.....	100.0	100.0	100.0	100.0	100.0
1941.....	300.9	87.7	96.0	91.6	188.7
1942.....	718.2	82.7	96.9	89.3	381.2
1943.....	859.2	84.8	98.7	91.2	447.6
1944.....	840.9	95.7	104.0	99.5	443.6
1945.....	819.2	104.5	109.7	106.9	437.5



Melted silver being cast into coinage bars. These are later rolled into strips from which coin blanks are cut.

**Combined Debt.**—As shown in the following table, the combined total of direct and indirect debt (exclusive of inter-governmental debt) of all governments in Canada amounted to \$21,392,326,000 at the close of their fiscal years ended nearest to Dec. 31, 1945.

**Combined Dominion, Provincial and Municipal Direct and Indirect Debt, 1942-45**

NOTE.—Figures are for fiscal years ended nearest to Dec. 31.

Item	1942	1943	1944	1945
	\$'000	\$'000	\$'000	\$'000
<b>Direct Debt—</b>				
Dominion.....	8,676,110	11,784,569	15,104,888	18,089,359
Provincial.....	1,892,182	1,827,213	1,805,770	1,804,335
Municipal.....	1,101,077	1,031,429	980,674	946,263
Totals.....	11,669,369	14,643,211	17,891,332	20,839,957
<i>Less Inter-governmental Debt..</i>	217,447	216,602	248,686	239,199
<b>Combined Direct Debt.....</b>	<b>11,451,922</b>	<b>14,426,609</b>	<b>17,642,646</b>	<b>20,600,758</b>
 <b>Indirect Debt—</b>				
Dominion.....	885,203	822,904	737,668	592,810
Provincial.....	189,980	192,310	189,180	175,549
Municipal.....	49,830	48,497	46,686	45,865
Totals.....	1,125,013	1,063,711	973,534	814,224
<i>Less Inter-governmental Debt..</i>	59,555	56,541	25,000	22,656
<b>Combined Indirect Debt..</b>	<b>1,065,458</b>	<b>1,007,170</b>	<b>948,534</b>	<b>791,568</b>
 <b>Grand Totals, Direct and Indirect Debt.....</b>	<b>12,517,380</b>	<b>15,433,779</b>	<b>18,591,180</b>	<b>21,392,326</b>

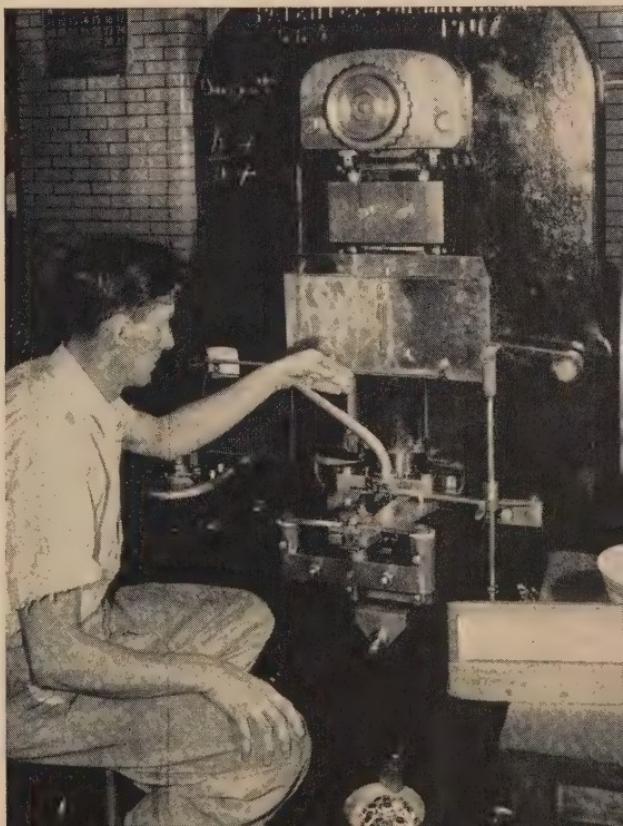
Large increases in the Dominion debt as a result of war financing have overshadowed reductions in both provincial and municipal debt. However, this increase has been largely in bonds outstanding, and represents additions to internal rather than external debt, as the Dominion was able to finance the War without recourse to the issue of foreign-pay bonds. Dominion direct and indirect foreign-pay bonds declined by more than \$900,000,000 in the period 1940-45, a large part of this reduction being due to the repatriation of sterling issues.

Buoyant revenues resulting in over-all surpluses, together with curtailed capital expenditure programs, the result, in part, of wartime restrictions, have made it possible for Provincial Governments to reduce their outstanding debt, some by fairly substantial amounts. Similarly, the general curtailment by municipalities of capital undertakings and works requiring debenture financing and increased tax collections resulting from general improvement in economic activity have resulted in progressive reductions in municipal debt.

### *Dominion Finance*

The Government's accounts for the fiscal year ended Mar. 31, 1948, showed a surplus of revenues over expenditures amounting to \$676,120,000 compared with a surplus of \$373,649,000 for the previous fiscal year.

Revenues declined for the second successive year while expenditures, which reached their peak in 1943-44, also continued their declining trend. The decrease in revenues during 1947-48 was somewhat sharper than during the previous year, while the decrease in expenditures was much less pronounced.



**A Coinage Press.** Coin blanks are automatically fed from the tube into position between the coinage dies and are deposited as finished coin in the bowl at the bottom of the press.

One of the most interesting aspects of Dominion finance to the ordinary citizen is the growth in the net debt of Canada and, in this regard, the following table is of particular interest since it shows the trend from Confederation down to the latest year, 1948. At Confederation the total net debt of Canada was only \$76,000,000 and represented \$21.58 per head of the population. The First and Second World Wars caused staggering increases; the net debt which was \$336,000,000 in 1914 increased to \$2,341,000,000 in 1921, or from \$42.64 per capita to \$266.37 per capita. By the end of the Second World War in 1946, net debt had reached the stupendous total of \$13,421,000,000 or \$1,090.55 per head of the population. The Budget surpluses of the two fiscal years ended in 1947 and 1948 have reduced the net debt by more than \$1,000,000,000 to \$12,372,000,000 or \$960.31 per head of population.

### Dominion Finances, 1868-1948

Year Ended Mar. 31—	Total Revenue	Per Capita Revenue <sup>1</sup>	Total Expenditure	Per Capita Expend- iture <sup>1</sup>	Net Debt at End of Year	Net Debt Per Capita <sup>1</sup>
						\$
1868.....	13,687,928	3.90	14,071,689	4.01	75,757,135	21.58
1871.....	19,375,037	5.25	19,293,478	5.23	77,706,518	21.06
1881.....	29,635,298	6.85	33,796,643	7.82	155,395,780	35.93
1891.....	38,579,311	7.98	40,793,208	8.44	237,809,031	49.21
1901.....	52,516,333	9.78	57,982,866	10.80	268,480,004	49.99
1911.....	117,884,328	16.36	122,861,250	17.05	340,042,052	47.18
1921.....	436,292,184	49.65	528,302,513 <sup>2</sup>	60.12	2,340,878,984	266.37
1931.....	357,720,435	34.48	441,568,413 <sup>2</sup>	42.56	2,261,611,937	217.97
1939.....	502,171,354	44.57	553,063,098 <sup>2</sup>	49.09	3,152,559,314	279.80
1940.....	562,093,459	49.39	680,793,792 <sup>2</sup>	59.82	3,271,259,647	287.43
1941.....	872,169,645	75.79	1,249,601,446 <sup>2</sup>	108.59	3,648,691,449	317.08
1942.....	1,488,536,343	127.73	1,885,066,055 <sup>2</sup>	161.75	4,045,221,161	347.11
1943.....	2,249,496,177	190.44	4,387,124,118 <sup>2</sup>	371.41	6,182,849,101	523.44
1944.....	2,765,017,713	230.90	5,322,253,505 <sup>2</sup>	444.45	8,740,084,893	729.86
1945.....	2,687,334,799	221.75	5,245,611,924 <sup>2</sup>	432.84	11,298,362,018	932.29
1946.....	3,013,185,074	244.84	5,136,228,505 <sup>2</sup>	417.34	13,421,405,449	1,090.55
1947.....	3,007,876,313	239.06	2,634,227,412 <sup>2</sup>	209.36	13,047,756,548	1,037.02
1948.....	2,871,746,110	222.91	2,195,626,453 <sup>2</sup>	170.43	12,371,636,893	960.31

<sup>1</sup> Per capita figures for census years are based on census populations and for intervening years on official estimates. <sup>2</sup> Includes non-active advances to railways and transfers from active to non-active assets.

Revenue from taxation accounted for 85.4 p.c. of total revenues in 1947-48, compared with 80.7 p.c. in 1946-47. Despite the lower personal income tax rates which were in effect for the last three-quarters of the fiscal year, revenue from income taxes, sustained by the buoyant condition of the national economy, increased by \$120,000,000 over the previous year. Non-tax revenues, continuing the upward trend of the past ten years, were \$17,000,000 higher than in the previous year.

Demobilization and reconversion expenditures were \$680,000,000 less in 1947-48 than in the previous year. Partially offsetting this decrease were increases of \$144,000,000 in ordinary expenditures; of \$54,000,000 in other charges (principally due to the increase from \$25,000,000 to \$75,000,000

in the annual provision for possible losses on realization of active assets); of \$31,000,000 in special expenditures; of \$8,000,000 in government-owned enterprise; and of \$4,000,000 in capital expenditures.

Some of the major items of ordinary expenditure were: interest on the public debt, which declined from \$464,000,000 in 1946-47 to \$455,000,000 in 1947-48; subsidies and compensation to provinces under taxation agreements, which increased from \$109,000,000 to \$156,000,000; old age pensions, which increased from \$36,000,000 to \$58,000,000; family allowances, which increased from \$245,000,000 to \$263,000,000; and expenditures by the Veterans Affairs Department, which increased from \$93,000,000 to \$97,000,000.

The increase in special expenditures was due to payment of subsidies on oats and barley used as feed for live stock, which amounted to \$14,000,000 in 1947-48, and to an increase of \$11,000,000 in payments made to the Canadian Wheat Board pursuant to Government guarantees concerning deficits in certain special accounts.

The increase in expenditures on account of government-owned enterprises arose chiefly from the increase of \$7,000,000 in the deficit of the Canadian National Railways.

#### ***Summary of Total Revenues and Expenditures, Years Ended Mar. 31, 1944-48***

Item	1944	1945	1946	1947	1948
<b>Revenues</b>	\$'000	\$'000	\$'000	\$'000	\$'000
Customs Import Duties.....	167,882	115,091	128,876	237,355	293,012
Excise Duties.....	142,124	151,922	186,726	196,044	196,794
Income Tax <sup>1</sup> .....	1,036,757	977,758	932,729	939,458	1,059,848
Excess Profits Tax <sup>1</sup> .....	428,718	341,305	426,696	442,497	227,031
Sales Tax.....	304,915	209,390	212,247	298,228	383,012
War Exchange Tax.....	118,912	98,164	41,198	338	—
Other taxes.....	237,503	260,997	273,886	313,741	292,378
Totals, Revenues from Taxation	2,436,811	2,154,627	2,202,358	2,427,661	2,452,075
Non-tax revenues.....	133,283	145,471	160,804	160,870	177,771
Totals, Ordinary Revenues.....	2,570,094	2,300,098	2,363,162	2,588,531	2,629,846
Special receipts and other credits.....	194,923	387,237	650,023	419,345	241,900
<b>Totals, Revenues.....</b>	<b>2,765,017</b>	<b>2,687,335</b>	<b>3,013,185</b>	<b>3,007,876</b>	<b>2,871,746</b>
<b>Expenditures</b>					
Ordinary expenditures.....	630,381	767,376	1,061,902	1,236,235	1,380,002
Capital expenditures.....	2,622	3,164	4,508	11,200	15,656
War, demobilization and reconversion expenditures (special).....	4,587,023	4,418,446	4,002,949	1,314,798	634,421
Other special expenditures.....	37,496	7,506	17,358	31,926 <sup>2</sup>	63,141 <sup>3</sup>
Government-owned enterprises.....	1,307	1,358	1,334	10,682	18,695
Other charges.....	63,424	47,762	48,177	29,386	83,711
<b>Totals, Expenditures.....</b>	<b>5,322,253</b>	<b>5,245,612</b>	<b>5,136,228</b>	<b>2,634,227</b>	<b>2,195,626</b>
<b>Deficits or Surplus.....</b>	<b>-2,557,236</b>	<b>-2,558,277</b>	<b>-2,123,043</b>	<b>+373,649</b>	<b>+676,120</b>

<sup>1</sup> Excludes refundable portion.      <sup>2</sup> Includes \$20,562,264 for deficits in certain special accounts of the Canadian Wheat Board.      <sup>3</sup> Includes \$31,450,498 for deficits in certain special accounts of the Canadian Wheat Board and \$13,963,218 for subsidy payments on oats and barley used as feed for live stock.



The Federal Government will spend \$7,000,000 for facilities to handle increased production from Steep Rock Iron Mines. A five-year development program is designed to bring "A" orebody into production and increase the output from about 1,000,000 tons a year to over 3,000,000 tons. "B" orebody, the present producing pit, is shown above.

**The 1948-49 Budget.**—The Budget for the fiscal year ending Mar. 31, 1949, was presented to Parliament on May 18, 1948. No general tax changes were made, but a number of specific modifications to the tax structure were introduced. In the personal income-tax field, the only change made was the additional \$500 exemption given to taxpayers 65 years of age or over. The allowances and tax credits granted the mining, oil and gas industries in respect of exploration were continued for another year. Payment of interest on overpayments of taxes was introduced and the interest rate of 4 p.c. on unpaid taxes was increased to 6 p.c.

Most of the food items still subject to sales tax were exempted, and the taxes on amusements and pari-mutuel bets were eliminated. Estates of less than \$50,000 were exempted from Dominion succession duties; several other changes were made in miscellaneous taxes and tariff reductions were made on a fairly long list of items.

After taking into account the tax changes proposed, a surplus of \$489,000,000 was forecast for the fiscal year ending Mar. 31, 1949, revenues being estimated at \$2,664,000,000 and expenditures at \$2,175,000,000.

**Borrowings.**—During the fiscal year ended Mar. 31, 1948, the Government of Canada reduced its outstanding funded debt by \$584,000,000. Total redemption of debt during the year, excluding the recurring issues of treasury bills, amounted to \$2,856,000,000, of which \$1,333,000,000 was financed through renewals or reconversions, and \$939,000,000 was raised by the sale of new issues for cash.

The new issues consisted of \$325,000,000 of two-year  $1\frac{1}{2}$  p.c. bonds which were sold to the Bank of Canada and the chartered banks; \$200,000,000 of six-month  $\frac{1}{2}$  p.c. treasury notes sold to the Bank of Canada; \$264,000,000 of  $2\frac{3}{4}$  p.c. Canada Savings Bonds, Series II, sold to individuals; \$50,000,000 of three-, four- and five-year  $2\frac{1}{2}$  p.c. notes acquired by the Export-Import Bank of Washington; and \$100,000,000 of deposit certificates sold to the chartered banks.

Minister of Finance  
Douglas C. Abbott  
draws letter "A" to  
establish identifi-  
cation of second  
group of First War  
Loan 3½ p.c. Bonds  
to be called for  
redemption. Bonds  
bearing this call letter  
are due for payment  
on Feb. 1, 1949.

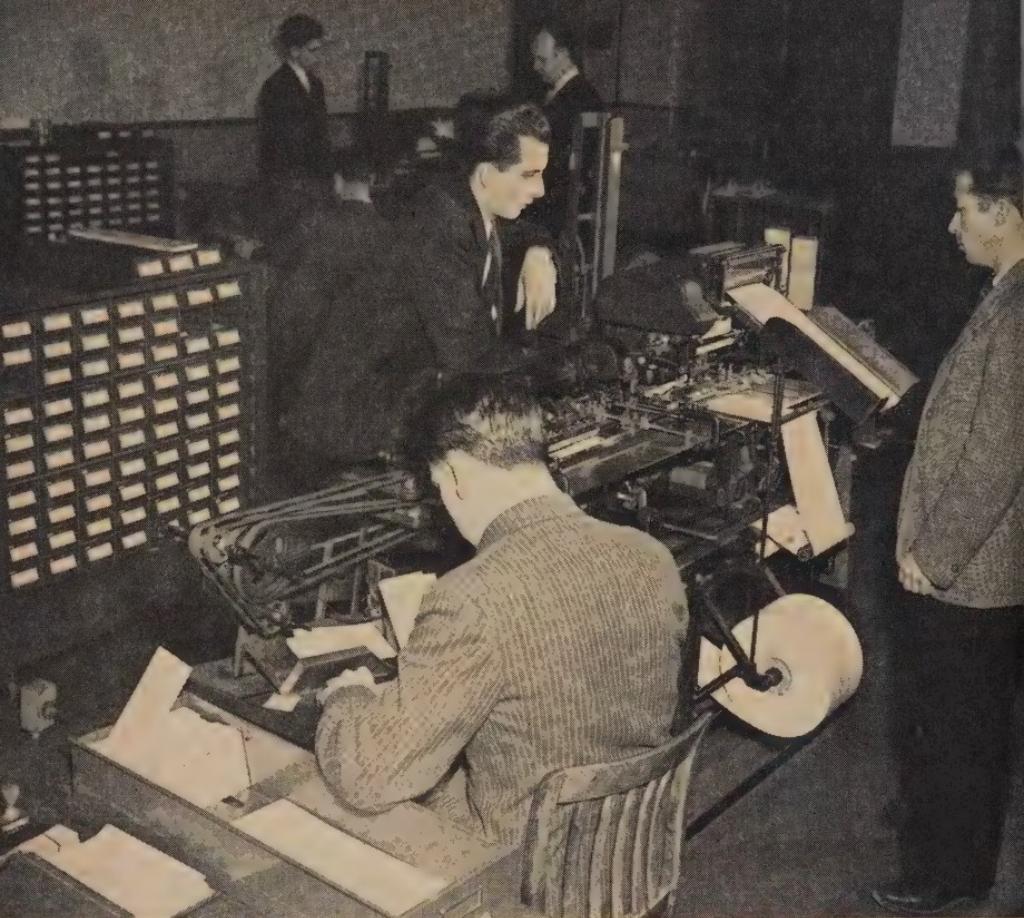


**Income Tax.**—The Income War Tax Act was introduced during the War of 1914-18 as part of what was known as war-tax revenue. However, it was a war tax in name only, for even before the outbreak of the Second World War it had become a permanent and important part of the taxation structure, and the chief means of raising ordinary revenue

In order to secure as much revenue from taxation as was desirable for the prosecution of the Second World War, the income tax base was broadened and the rates increased. By 1942 the minimum exemption for single persons had been reduced to \$660 from \$1,000 prior to the War and to \$1,200 from \$2,000 in the case of married persons. Rates of tax on income above these exemptions reached a peak in 1943, but a portion of the tax payable was made refundable after the War and, when the refundable feature was dropped in July, 1944, the immediate cash burden on individual taxpayers was reduced. A further reduction of 4 p.c. was made in 1945 and of 16 p.c. in 1946. A new general tax structure for 1947 was introduced in the 1946 Budget which raised the minimum exemptions to \$750 for single persons and \$1,500 for married, coupled with a reduced schedule of tax rates. A further reduction in tax rates became effective in July, reducing the tax burden for the whole of 1947 by approximately 32 p.c. from the preceding 1946 level. The 1948 Budget contained no general change in tax rates or exemptions, but the net tax for the year 1948 was lower than for 1947 because the 1947 rate reduction was put into effect in mid-year. However, a new feature for 1948 was that taxpayers aged 65 or over were granted an additional \$500 exemption.

Before the outbreak of war the burden of income tax was shared by approximately 250,000 persons; this was expanded to over 2,377,000 by 1947. The lowering of exemptions was, of course, the prime influence in expanding the body of Canadian income taxpayers but the higher level of employment and of wage scales also had an important effect.

Substantially higher taxes were also levied during the War on business profits. The rate of corporation income tax was raised from a pre-war 15 p.c. to 18 p.c. in 1940. The main wartime medium for taxing business profits,



*Family allowance cheques receiving official signatures and plate impressions. Each month almost 1,700,000 cheques, with a value of \$22,600,000, are sent out.*

however, was the Excess Profits Tax Act, 1940, which, when taken together with the 18 p.c. income tax, combined, in effect, to levy a 40 p.c. tax on all profits plus an additional 60 p.c. on excess profits. A portion of the tax on excess profits was made refundable to the taxpayer after the War. Effective at Jan. 1, 1947, the tax on business profits was reduced to a straight corporation income tax of 30 p.c. plus a tax of 15 p.c. on excess corporation profits. Wartime agreements with the provinces expired at the end of 1946 and new agreements came into effect on Jan. 1, 1947, whereby a 5 p.c. tax was collected on behalf of seven of the provinces. A 7 p.c. tax was levied by the two provinces remaining outside the agreement. The excess profits tax terminated on Dec. 31, 1947.

Analyses of individual and corporation income and excess profits tax for recent taxation years are given in the following tables. A taxation year is a period of time during which income is received and becomes subject to tax. In the case of an individual it is almost always the calendar year, and in the case of a corporation it is the calendar year in which the company's fiscal period ends. Under the present system of collection, a substantial portion of the taxes is collected during the year in which the income is earned and the balance almost entirely in the two following years.

**Collections of Income and Excess Profits Tax, Taxation Years 1939-48**

Tax- ation Year	Individuals and Individual Businesses			Corporations		
	Income Tax	Excess Profits Tax	Total	Income Tax	Excess Profits Tax	Total
	\$	\$	\$	\$	\$	\$
1939...	54,781,130	—	54,781,130	90,498,381	—	90,498,381
1940...	152,245,616	4,533,451	156,779,067	151,394,634	102,518,315	253,912,949
1941...	329,333,512	10,148,521	339,482,033	224,471,245	252,371,160	476,842,405
1942...	391,194,438	18,543,654	409,738,092	270,204,989	396,478,331	666,683,320
1943...	825,781,811	25,375,690	851,157,501	278,507,805	458,896,881	737,404,686
1944...	809,113,007	27,850,327	836,963,334	231,004,405	431,502,987	662,507,392
1945...	710,478,191	30,417,265	740,895,456	191,072,297 <sup>2</sup>	407,618,086 <sup>2</sup>	598,690,383 <sup>2</sup>
1946 <sup>1</sup> ...	675,305,315	12,119,676	687,424,991	265,347,162	383,091,601	648,438,763
1947 <sup>1</sup> ...	523,518,356	1,062,243	524,580,599	308,689,415	149,426,464	458,115,879
1948 <sup>1</sup> ...	70,003,930	—	70,003,930	24,324,064	6,237,256	30,561,320

<sup>1</sup> The accounts for these taxation years are not yet closed and the figures are therefore not complete. There will be a small change in the 1946 account and substantial additions to the 1947 and 1948 accounts. <sup>2</sup> Refunds of \$74,358,645 arising out of renegotiation of war contracts and applicable in varying amounts to the war years 1941 to 1944 have, of necessity, been deducted from the 1945 figures. The true 1945 year collections are therefore higher and the 1941 to 1944 collections lower than is shown above.

**Estimated Number of Taxpayers, Total Income and Tax Collected Thereon, by Income Classes, 1947**

Income Class	Taxpayers	Total Income	Total Tax		
				No.	\$
Below \$ 1,000.....	241,500	211,885,000	4,906,000		
\$1,000 - 2,000.....	1,023,065	1,571,395,000	95,288,000		
2,000 - 3,000.....	746,115	1,786,035,000	132,588,000		
3,000 - 4,000.....	178,250	606,050,000	76,279,000		
4,000 - 5,000.....	76,765	337,766,000	51,762,000		
5,000 - 10,000.....	84,330	554,797,000	108,067,000		
Over 10,000.....	27,500	537,161,000	181,718,000		
<b>Totals.....</b>	<b>2,377,525</b>	<b>5,605,089,000</b>	<b>650,608,000</b>		

**Estimated Number of Taxpayers, Total Income and Tax Collected Thereon, by Marital Status and Number of Dependents, 1947**

Class	Taxpayers	Total Income	Total Tax		
				No.	\$
Single, no dependents.....	997,450	1,577,765,000	193,686,000		
Single, one dependent.....	48,750	91,184,000	12,723,000		
Single, two or more dependents.....	21,135	50,042,000	8,402,000		
Married, no dependents.....	505,750	1,441,391,000	173,457,000		
Married, one dependent.....	348,680	1,006,649,000	109,215,000		
Married, two dependents.....	254,240	793,474,000	88,337,000		
Married, three dependents.....	113,870	365,890,000	39,303,000		
Married, four dependents.....	51,225	161,562,000	15,744,000		
Married, five dependents.....	20,680	65,328,000	5,506,000		
Married, six or more dependents.....	15,745	51,804,000	4,235,000		
<b>Totals.....</b>	<b>2,377,525</b>	<b>5,605,089,000</b>	<b>650,608,000</b>		

## Provincial Finance

### Gross Ordinary Revenues and Expenditures of Provincial Governments, by Provinces, 1944-46

NOTE.—Figures are for fiscal years ended nearest Dec. 31.

Province	Gross Ordinary Revenues			Gross Ordinary Expenditures		
	1944	1945	1946 <sup>1</sup>	1944	1945	1946 <sup>1</sup>
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Prince Edward Island	2,564	2,904	4,000	2,907	3,203	3,900
Nova Scotia.....	22,526	24,367	27,000	20,252	23,187	23,600
New Brunswick.....	17,875	19,454	23,000	17,318	18,981	20,800
Quebec.....	122,308	137,617	—	118,306	122,929	—
Ontario.....	140,627	159,665	—	139,503	151,729	—
Manitoba.....	25,669	28,259	—	20,641	22,628	—
Saskatchewan.....	37,551	41,570	—	29,607	34,810	—
Alberta.....	32,560	40,651 <sup>2</sup>	—	25,002	28,034 <sup>2</sup>	—
British Columbia.....	47,295	53,468	—	40,619	45,607	—
<b>Totals.....</b>	<b>448,975</b>	<b>507,955</b>	<b>—</b>	<b>414,155</b>	<b>451,108</b>	<b>—</b>

<sup>1</sup> These figures are available for three provinces only.

<sup>2</sup> Exclusive of cash collected and expended re Debt Reorganization Program.

*Motor-vehicle licences and gasoline taxes provide a substantial part of the revenue of Provincial Governments but most of this revenue is given back to the motorist in the form of highway and bridge maintenance, construction and traffic regulation.*



Commencing with the year 1946, the basis for the classification of revenues by source and expenditures by function has been revised. The new classification is shown below. The information for individual items is not wholly comparable with that for previous years and at the time of going to press is available only for three provinces.

**Net Ordinary and Capital Revenues and Expenditures of Provincial Governments, by Provinces, 1944-46**

Province	1944	1945	1946 <sup>1</sup>	Classification <sup>2</sup>
REVENUES				
P.E.I.....	\$'000 2,183	\$'000 2,529	\$'000 3,600	Taxes
N.S.....	17,810	19,207	22,500	Privileges, licences and permits— Motor-vehicles
N.B.....	14,246	15,605	19,000	Other
Que.....	103,281	117,236	—	Sales and services
Ont.....	115,712	132,911	—	Fines and penalties
Man.....	21,325	24,199	—	Interest, premium, discount and exchange
Sask.....	31,002	34,992	—	Government Contributions— Dom.-Prov. tax agreements
Alta.....	27,416	34,490 <sup>3</sup>	—	Other Dominion
B.C.....	40,962	46,057	—	Municipal
Contributions from government enterprises				
Liquor profits				
Other revenues				
Liquor Control Revenue—				
Taxes				
Permits				
Fines				
<b>Totals.....</b>				
<b>373,937      427,226      —</b>				
EXPENDITURES <sup>4</sup>				
P.E.I.....	\$'000 2,769	\$'000 3,323	\$'000 3,900	General government (including legislation)
N.S.....	15,156	18,401	24,700	Protection of persons and property
N.B.....	15,901	17,352	23,700	Transportation and communications
Que.....	107,928	110,970	—	Health and social welfare
Ont.....	113,486	124,777	—	Recreational and cultural services
Man.....	14,572	16,958	—	Education
Sask.....	22,707	27,851	—	Natural resources and primary industries
Alta.....	22,623	23,480 <sup>3</sup>	—	Trade and industrial development
B.C.....	34,773	39,505	—	Local government planning and development
Debt charges				
Municipal subsidies				
Contributions to government enterprises				
<b>Totals.....</b>				
<b>349,915      382,617      —</b>				
Other expenditures				

<sup>1</sup> These figures, available for three provinces only, are preliminary. <sup>2</sup> Figures cannot be given for the classification items since totals for Canada are not available (see preceding text). <sup>3</sup> Exclusive of payments and expenditures *re* Debt Reorganization Program. <sup>4</sup> Expenditure figures are exclusive of debt retirement.

Total direct and indirect debt of Provincial Governments increased only moderately in 1946. Gross bonded debt, however, which amounted to \$1,671,598,000 in 1946, represented an increase of \$29,935,000 over the corresponding total for 1945. This was the first year since 1940 that provincial bonded debt increased over the previous year's total.

*Direct and Indirect Liabilities of Provincial Governments (less Sinking Funds), by Provinces, 1944-46, with Combined Details for 1946*

Province	1944	1945	1946 <sup>1</sup>	Details	1946 <sup>1</sup>
	\$'000	\$'000	\$'000		\$'000
<b>Direct Debt—</b>					
P.E.I.....	9,667	10,415	10,626	Bonded debt.....	1,671,598
N.S.....	86,400	93,204	94,290	Less Sinking Funds.....	226,092 <sup>2</sup>
N.B.....	93,403	99,128	102,408		
Que.....	376,082	366,429	358,412	Net Bonded Debt.....	1,445,506
Ont.....	646,715	639,547	645,481	Treasury bills.....	210,542
Man.....	99,897	94,122	93,679	Savings deposits.....	62,634
Sask.....	205,441	194,463	199,406	Temporary loans.....	5,611
Alta.....	147,519	159,042	155,755	Superannuation and other deposits.....	26,750
B.C.....	140,749	147,985	152,317	Accrued expenditure.....	18,535
				Accounts payable and other liabilities.....	42,796
<b>Totals, Direct Debt.....</b>	<b>1,805,873</b>	<b>1,804,335</b>	<b>1,812,374</b>	<b>Total, Direct Debt.....</b>	<b>1,812,374</b>
<b>Indirect Debt—</b>					
P.E.I.....	162	92	89	<b>Indirect Debt—</b>	
N.S.....	2,729	2,721	2,585	Guaranteed bonds.....	3
N.B.....	2,256	1,866	1,972	Less Sinking Funds.....	3
Que.....	36,814	38,157	42,235		
Ont.....	127,734	117,705	114,066	Net Guaranteed Bonds...	125,366
Man.....	2,531	2,313	1,506	Loans under M.L.A. Act...	5,216
Sask.....	1,824	1,852	1,212	Guaranteed bank loans...	7,666
Alta.....	6,254	1,935	1,193	Other indirect liabilities..	35,593
B.C.....	8,877	8,908	8,983		
<b>Totals, Indirect Debt.....</b>	<b>189,181</b>	<b>175,549</b>	<b>173,841</b>	<b>Total, Indirect Debt....</b>	<b>173,841</b>
<b>Grand Totals...</b>	<b>1,995,054</b>	<b>1,979,884</b>	<b>1,986,215</b>	<b>Grand Total.....</b>	<b>1,986,215</b>

<sup>1</sup> Subject to revision.      <sup>2</sup> Includes \$2,766,943 sinking funds held by Nova Scotia Power Commission in respect of bonds issued by the Province.      <sup>3</sup> Not available.

*Gross Provincial Bonded Debt, by Currency of Payments, 1943-46*

Payable in—	1943	1944	1945	1946 <sup>1</sup>
	\$'000	\$'000	\$'000	\$'000
Canada only.....	978,401	979,545	967,965	1,030,477
London (England) only.....	45,530	45,413	37,215	36,912
London (England) and Canada.....	25,609	20,214	16,214	16,214
New York only.....	19,519	33,905	31,905	21,905
New York and Canada.....	348,835	355,426	353,205	335,117
London (England) New York and Canada...	261,652	238,963	230,423	226,237
Other.....	4,736	4,736	4,736	4,736
<b>Totals.....</b>	<b>1,684,282</b>	<b>1,678,202</b>	<b>1,641,663</b>	<b>1,671,598</b>

<sup>1</sup> Subject to revision.

Most of the settled portion of Canada is organized into municipal corporations under the jurisdiction and control of the Provincial Governments. Each province has its own characteristic municipal system, controlled in all but Prince Edward Island by a department of the Government. Urban municipalities are incorporated as cities, towns and villages, while the rural municipalities have varying designations in different provinces such as counties, municipalities, municipal districts, parishes, townships or districts. In 1946 there were 3,970 incorporated municipalities in Canada.

**Municipal Assessments and Tax Levies.**—The major source of municipal revenue in Canada is direct taxation. Taxation revenue in turn is largely derived from levies on the assessed values of real property. Both assessed values and tax rates have been increasing steadily since the beginning of the Second World War with a resultant growth in tax levies. Buoyant economic conditions have resulted in the collection of high percentages of current levies and the reduction of arrears in all provinces in the subsequent period.

**Municipal Revenue.**—Estimated municipal revenue for 1946 was \$381,500,000 of which \$276,100,000, or 72·4 p.c. was derived from taxes on real property, \$39,800,000 or 10·4 p.c. from other taxes, and the remaining \$65,600,000 or 17·2 p.c. from other sources, including licences and permits, public utility contributions, provincial subsidies, and amounts received under Dominion-Provincial Taxation Agreements.

**Municipal Expenditure.**—Support of local schools again required the largest expenditure by municipal governments, totalling \$104,400,000 or 27·3 p.c. of all expenditure. Other services cost \$208,300,000 or 54·5 p.c. and debt charges together with provision for debt repayment \$69,400,000 or 18·2 p.c. Total expenditures were \$382,100,000. The 1939 total expenditure of \$329,038,000 was divided as follows: 25·0 p.c. for school support, 48·3 p.c. for other services and 26·7 p.c. for debt charges and debt retirement.

**Bonded Debt and Other Direct Liabilities.**—The rapid growth of municipalities, together with increased demands and responsibilities for improvements, schools and other services, has resulted in the incurring of a heavy burden of debt.

Reductions in recent years have been due to general curtailment of capital undertakings requiring debenture financing, the extension of provincial control over municipal borrowings and the fact that the greater part of the total municipal debt is represented by serial or instalment-type debentures requiring yearly repayments of principal. While the benefits of debt reduction are of course manifold, certain expenditures have been sorely needed in many communities for the rehabilitation of existing assets and for new improvements necessitated by normal expansion and development. These were sacrificed in the earlier years in the interests of the taxpayers and later, under wartime conditions, the policy of deferment was continued in order to free the financial market to the Federal Government for war-financing needs.

**Municipal Assessed Valuations, Tax Levies, Collections and Receivables,  
by Provinces, 1946, with Totals for 1941-45**

Year and Province	Valuations on which Taxes were Levied	Tax Levy	Tax Collections (Current and Arrears)	Percentage of Levy	Total Taxes Receivable and Property Acquired for Taxes
	\$'000	\$'000	\$'000		\$'000
Totals, 1941.....	7,859,415	272,458	237,680 <sup>1</sup>	104.6 <sup>1</sup>	237,133
Totals, 1942.....	7,892,698	275,983	239,110 <sup>1</sup>	105.0 <sup>1</sup>	208,406
Totals, 1943.....	7,906,826	278,697	298,196	107.0	192,777
Totals, 1944.....	7,963,405	281,403	257,188 <sup>1</sup>	109.2 <sup>1</sup>	154,757
Totals, 1945.....	8,155,068	291,693	<sup>2</sup>	<sup>2</sup>	134,021
<b>1946</b>					
P.E.I.....	15,487	394	404	102.5	132
N.S.....	199,040	10,706	10,635	99.3	3,432
N.B.....	215,663	7,350	7,301	99.3	3,040
Que.....	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>
Ont.....	3,173,454	117,629	117,925	100.3	19,149
Man.....	463,486	21,851	24,079	110.2	9,197
Sask.....	823,552	26,778	27,825	103.9	22,582
Alta.....	546,052	23,290	24,634	105.8	19,581
B.C.....	448,357	22,624	22,684	100.3	9,821
<b>Totals, 1946.....</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>

<sup>1</sup> Excludes Quebec cities and towns.

<sup>2</sup> Information for Quebec not available.

*Canadian municipalities take pride in providing lovely restful spots such as this for enjoyment by their residents.*



**Municipal Bonded Debt and Sinking Funds, Selected Years 1919-46,  
and by Provinces, 1932 and 1946**

Year	Gross Bonded Indebtedness of Municipali- ties <sup>1</sup>	Total of Sinking Funds	Province	Gross Bonded Indebtedness of Municipalities	
				1932 <sup>2</sup>	1946
	\$'000	\$'000		\$'000	\$'000
1919.....	729,715	3	P.E.I.....	2,129	3,069
1925.....	1,015,950	3	N.S.....	31,606	32,445
1930.....	1,271,390	3	N.B.....	24,753	23,822
1935.....	1,372,026	267,709	Que.....	463,614	4
1938.....	1,302,201	269,736	Ont.....	504,756	221,501
1939.....	1,280,856	272,010	Man.....	92,471	48,671
1940.....	1,244,001	259,343	Sask.....	59,238	29,293
1941.....	1,196,491	261,459	Alta.....	76,892	37,334
1942.....	1,136,897	258,064	B.C.....	129,333	106,551
1943.....	1,074,777	254,864			
1944.....	1,006,936	178,780	Total.....	1,384,792	4
1945.....	965,450	168,365			
1946.....	4	4			

<sup>1</sup> Not entirely comparable due to incompleteness of data prior to 1939.      <sup>2</sup> Debt for rural schools in the Maritimes not included.      <sup>3</sup> Sinking fund totals not available previous to 1934: Alberta showed net debt to 1928.

<sup>3</sup> Information for Quebec not available for 1946.

**Direct and Indirect Liabilities of Municipal Governments (less Sinking Funds), by Provinces, 1944-46, with Details for 1945**

Item	1944	1945	1946	Item	1945
	\$'000	\$'000	\$'000		\$'000
<b>Direct Debt—</b>				<b>Direct Debt—<sup>1</sup></b>	
P.E.I. <sup>1</sup> .....	2,396	2,276	2,174	Debenture debt.....	965,450
N.S. <sup>1</sup> .....	20,396	18,864	20,419	Less Sinking Funds.....	168,365
N.B. <sup>1</sup> .....	16,802	19,214	18,350		
Que.....	455,457	449,881	2	Net Debenture Debt.....	797,085
Ont.....	241,879	224,271	213,460	Temporary loans.....	32,807
Man.....	46,509	43,444	42,874	Accounts payable and other	
Sask.....	71,818	60,984	51,724	Liabilities.....	116,371
Alta.....	48,259	48,452	47,838		
B.C.....	77,158	78,877	82,078		
<b>Totals, Direct Debt.....</b>	<b>980,674</b>	<b>946,263</b>	<b>2</b>	<b>Total Direct Liabilities (less Sinking Funds)....</b>	<b>946,263</b>
<b>Indirect Debt—</b>				<b>Indirect Debt—</b>	
P.E.I.....	3	3	3	Guaranteed loans, deben- tures, etc.....	54,613
N.S.....	854	699	674	Less Sinking Funds.....	8,748
N.B.....	214	199	148		
Que.....	2,992	2,754	2		
Ont.....	21,420	21,480	20,036		
Man.....	9,830	9,417	9,059		
Sask.....	3	3	3		
Alta.....	3	3	3		
B.C.....	11,376	11,316	13,797		
<b>Totals, Indirect Debt.....</b>	<b>46,686</b>	<b>45,865</b>	<b>2</b>	<b>Total Indirect Liabilities (less Sinking Funds)....</b>	<b>45,865</b>
<b>Grand Totals...</b>	<b>1,027,360</b>	<b>992,128</b>	<b>2</b>	<b>Grand Total.....</b>	<b>992,128</b>

<sup>1</sup> Excludes rural schools in the Maritime Provinces.      <sup>2</sup> Information for Quebec not available.

<sup>3</sup> None reported.

# Banking Insurance

**T**HE banking system of Canada consists of the central bank, known as the Bank of Canada, which, in addition to acting as the Government's banker, managing the public debt and having the right of note issue, etc., is also the banker for the privately owned commercial banks whose ordinary business is that of making loans for businessmen and commercial purposes. This chapter treats of these banks and of the insurance business of Canada.

## ★ Banking

Banking in Canada began to develop some of the features of a central bank system soon after Confederation. These in chronological order are:—

- (1) *Central Note Issue*, permanently established with the issue of Dominion notes under legislation of 1868.
- (2) *The Canadian Bankers' Association*, established in 1900 to effect greater co-operation in the issue of notes, in credit control, and in various other ways.
- (3) *Central Gold Reserves*, established in 1913.
- (4) *Re-discount Facilities*, made a permanent feature of the system in 1923, provided the banks with a means of increasing their legal tender cash reserves at will.
- (5) *The Bank of Canada*, established as a central bank in 1935.

**The Bank of Canada.**—Legislation was enacted in 1934 to establish the Bank of Canada as a central or bankers' bank. All of its stock is now vested in the Federal Government. The Bank regulates the statutory cash reserves of the chartered banks, which are required to maintain not less than 5 p.c. of their deposit liabilities payable in Canadian dollars in the form of deposits with, and notes of, the Bank of Canada. The Bank also acts as the fiscal agent of the Dominion of Canada and may, by agreement, act as banker or fiscal agent for any province. Bank of Canada notes, which are legal tender, will soon become the only source of paper money in Canada since the right of the chartered banks to issue or re-issue notes was cancelled on Jan. 1, 1945.

The Bank of Canada is empowered to buy and sell securities in the open market; to discount securities and commercial bills; to fix minimum rates at which it will discount; to buy and sell bullion and foreign exchange. Under the Exchange Fund Order, 1940, the Bank transferred its reserve of gold to the Foreign Exchange Control Board in which Canada's exchange reserves have now been centralized. At the same time the Bank of Canada's statutory 25 p.c. minimum gold reserve requirement against its note and deposit liabilities was temporarily suspended.

**The Industrial Development Bank.**—The Industrial Development Bank, which commenced operations on Nov. 1, 1944, is a subsidiary of the Bank of Canada but operates as a separate entity. Its function is to supplement the activities of the chartered banks and other lending agencies by supplying the medium and long-term capital needs of small enterprises; the bank does not engage in the business of deposit banking. The capital stock of \$25,000,000, now completely paid-up, was subscribed by the Bank of Canada. In addition, the Industrial Development Bank may borrow up to three times the amount of its paid-up capital stock and reserve fund, by the issue of bonds and debentures, thus providing total resources of \$100,000,000.

The following table shows the classifications of authorized and outstanding loans and investments as at Sept. 30, 1948.

*Loans and Investments of the Industrial Development Bank, by Provinces and Industries, as at Sept. 30, 1948*

	Authorized	Out-standing		Authorized	Out-standing
Provincial Classification—	\$	\$	Industrial Classification—concl.	\$	\$
Prince Edward Island.....	39,000	35,200	Paper products (incl. pulp).....	3,980,700	3,416,625
Nova Scotia.....	436,000	335,500	Printing, publishing and allied industries.....	1,136,000	918,515
New Brunswick.....	750,500	580,258	Iron and steel products (incl. machinery and equipment).....	3,732,229	2,698,250
Quebec.....	10,892,850	6,875,011	Transportation equipment.....	993,250	734,619
Ontario.....	10,711,250	8,470,759	Non-ferrous metal products.....	35,000	9,111
Manitoba.....	1,345,229	818,907	Electrical apparatus and supplies.....	675,500	406,492
Saskatchewan.....	250,800	181,133	Non-metallic mineral products.....	1,832,000	1,457,243
Alberta.....	2,049,700	1,357,624	Products of petroleum and coal.....	766,000	543,064
British Columbia and Territories.....	3,999,050	1,962,051	Chemical products.....	3,108,500	1,486,538
<b>Totals.....</b>	<b>30,474,379</b>	<b>20,616,443</b>	Miscellaneous manufacturing industries.....	695,000	329,262
<b>Industrial Classification—</b>			Refrigeration.....	2,438,250	1,147,532
Foods and beverages.....	4,017,600	2,845,270	Generating or distributing of electricity	95,000	85,000
Rubber products.....	25,000	25,000	<b>Totals.....</b>	<b>30,474,379</b>	<b>20,616,443</b>
Leather products.....	597,500	395,118			
Textile products (except clothing).....	2,111,600	1,400,456			
Clothing (textile and fur).....	709,200	437,029			
Wood products.....	3,526,050	2,281,319			

**Commercial Banking.**—While the aggregate supply of money is determined by the central bank, it rests with the chartered banks to provide the individual credit requirements of commerce and industry of the public generally. There are ten banks chartered under the Bank Act and only they, and two long-established savings banks, in addition to the Bank of Canada, are legally entitled to call themselves "banks" or to use the word "banking" in connection with their business.

The branch bank is perhaps the most distinctive feature of the Canadian system as it exists to-day and, for a country such as Canada, vast in area



*Inspectors about to 'take over' a Montreal bank. This is a major operation, especially in the larger branches, that takes place in every bank once or twice a year without warning. Every item of the bank's business is checked and all records balanced.*

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and with a small population, the plan has proved a good one. There has been no bank failure since 1923 and note holders have experienced no losses whatever since 1881.

The ten commercial banks have over 3,300 offices spread out over the Dominion, many located in small villages which would be quite unable to support an independent bank. The head offices of the banks neither take nor lend money—all the banking business is done by the branches, each branch enjoying considerable independence. But the fact that these branches are linked has a very important bearing on the country-wide economic situation.

The primary function of the bank is to provide a safe repository for savings and surplus funds and to furnish credit for carrying on the business of the country. Credit is given in a variety of ways. Direct loans are made, the proceeds of which customers use for purchasing raw materials, paying wages and other operating expenses or for the purchase of goods for resale. Letters of credit are issued to finance the importation of goods. In this way the bank exchanges its well-known and acceptable credit for the less-known credit of its customers. Apart from the deposit and loan facilities provided, the banks render innumerable services to the communities in which they serve.

**Statistics of Individual Chartered Banks as at Oct. 30, 1948,  
with Totals for Selected Years from 1930**

NOTE.—Annual figures are averages from the respective monthly statements except in the case of the numbers of branches which are as at Dec. 31.

Bank and Year	Branches in Canada and Abroad <sup>1</sup>	Total Assets	Liabili- ties to Share- holders	Liabili- ties to the Public	Loans and Dis- counts	Total Deposit Lia- bilities <sup>2</sup>
	No.	\$ '000,000	\$ '000,000	\$ '000,000	\$ '000,000	\$ '000,000
Bank of Montreal.....	473	1,991	80	1,908	487	1,841
Bank of Nova Scotia.....	313	750	36	711	293	668
Bank of Toronto.....	200	418	20	397	131	387
Provincial Bank of Canada.....	131	162	6	156	47	153
Canadian Bank of Commerce.....	496	1,529	60	1,466	448	1,388
Royal Bank.....	659	2,172	75	2,094	631	1,970
Dominion Bank.....	132	393	17	375	147	359
Banque Canadienne Nationale.....	225	406	14	392	148	384
Imperial Bank of Canada.....	179	472	17	453	183	430
Barclay's Bank (Canada).....	3	31	2	29	5	21
<b>Totals, Oct. 1948.....</b>	<b>2,811</b>	<b>8,324</b>	<b>327</b>	<b>7,981</b>	<b>2,520</b>	<b>7,601</b>
<b>Totals, 1947.....</b>	<b>2,718</b>	<b>7,865</b>	<b>327</b>	<b>7,528</b>	<b>2,298</b>	<b>7,115</b>
<b>Totals, 1945.....</b>	<b>2,619</b>	<b>6,743</b>	<b>282</b>	<b>6,439</b>	<b>1,505</b>	<b>6,160</b>
<b>Totals, 1942.....</b>	<b>2,642</b>	<b>4,400</b>	<b>281</b>	<b>4,102</b>	<b>1,370</b>	<b>3,834</b>
<b>Totals, 1939.....</b>	<b>2,861</b>	<b>3,592</b>	<b>279</b>	<b>3,298</b>	<b>1,244</b>	<b>3,061</b>
<b>Totals, 1930.....</b>	<b>3,598</b>	<b>3,237</b>	<b>305</b>	<b>2,910</b>	<b>2,065</b>	<b>2,517</b>

<sup>1</sup> As at Dec. 31 of previous year. Does not include sub-agencies which numbered 652 in 1947.

<sup>2</sup> Excluding inter-bank deposits.

**Cheque Payments.**—The great bulk of monetary transfers in Canada is made through the banks, payments in notes and coin being of relatively minor importance. It is estimated that about 80 p.c. of all business transactions are financed by cheque and the amount of the cheques paid through the banks and charged to deposit accounts is thus a fairly accurate measurement of the volume of business transacted in a given period.

The amount of business transacted in the form of cheques cashed rose considerably in 1947 over 1946, establishing a new high position. The

*the pit of the  
Toronto Stock  
Exchange.*





A compact and efficient branch bank equipped with the latest models of time-saving banking machines.

increase, accounted for by higher wholesale prices and greater industrial activity, was general in the five economic areas. The greatest relative increase was achieved in British Columbia. Ontario and the Prairie Provinces showed gains in 1947 following recessions in 1946, and Quebec and the Maritimes continued the steady advance recorded since 1940.

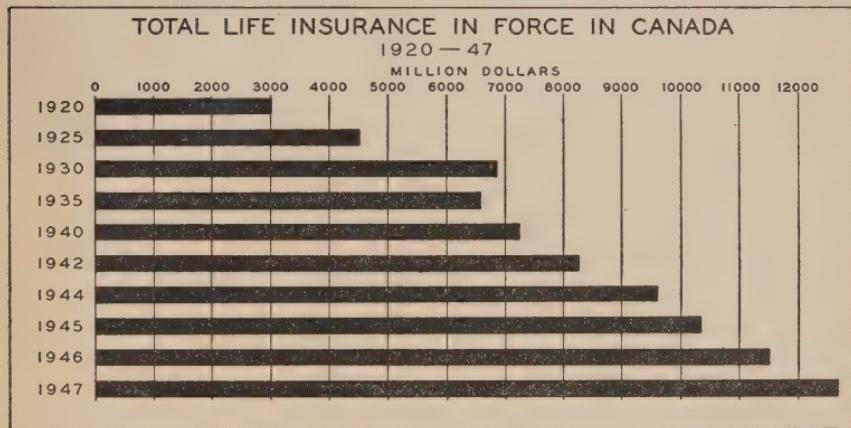
The increase in cheques cashed during the War and post-war years has been extraordinary, nine consecutive advances being recorded between 1939 and 1947 for a cumulative advance amounting to almost 141 p.c. This advance continued into 1948, figures for the first nine months of the year indicating an increase of 6·5 p.c. over the same period of 1947.

#### Cheques Cashed at Clearing-House Centres, 1943-47

Economic Area	1943	1944	1945	1946	1947
	\$	\$	\$	\$	\$
Maritime Provinces....	1,243,762,861	1,327,660,964	1,553,590,758	1,604,018,266	1,750,654,723
Quebec.....	15,373,881,025	17,222,287,360	19,309,332,983	20,749,359,813	22,919,909,358
Ontario.....	24,681,702,142	26,902,944,561	31,543,361,615	30,401,955,884	30,433,876,385
Prairie Provinces	9,199,963,592	11,488,439,812	11,562,164,231	11,124,679,682	12,853,736,283
British Columbia	3,297,405,107	3,735,621,710	4,416,363,574	5,367,593,788	6,539,916,229
<b>Totals.....</b>	<b>53,796,714,727</b>	<b>60,676,954,407</b>	<b>68,384,813,161</b>	<b>69,247,607,433</b>	<b>74,498,092,978</b>

**Life Insurance.**—The life insurance business was introduced into Canada by companies from the British Isles and the United States about the middle of the nineteenth century. By 1875 there were at least 26 companies competing for the available business in Canada, as against 48 active companies registered under the Acts of Canada and a few provincial companies in 1947. Of the 48 active companies so registered, 29 were Canadian, 4 British, and 15 foreign.

As a result of the adaptation of life insurance policies to the needs of the public and of the growing wealth of the country, the increase in the amount of life insurance in force has been remarkable. The life insurance in force in Canada in 1869 was less than \$36,000,000 as compared with \$12,675,000,000 at the end of 1947, the latter figure including \$332,000,000 carried by provincial life companies and \$443,000,000 by all fraternal benefit societies. Thus the total life insurance in force in Canada at the end of 1947 was approximately \$1,007 per capita. The premium income from such business increased from \$97,000,000 in 1920 to \$230,000,000 in 1930, and to \$321,000,000 in 1947.



**Fire Insurance.**—As at Dec. 31, 1947, there were 268 fire insurance companies registered under the Insurance Acts of Canada and doing business in Canada, of which 59 were Canadian, 73 were British, and 136 were foreign companies, whereas in 1875, the first year for which authentic records were collected by the Insurance Department, 27 companies operated in Canada—11 Canadian, 13 British, and 3 United States. The proportionate increase in the number of British and foreign companies from 59 to 78 p.c. of the total number is a very marked point of difference between fire and life insurance in Canada, the latter being carried on very largely by Canadian companies.

The enormous increase that has taken place throughout the years of record in the amount of fire insurance in force is due partly to the growth of the practice of insurance; it is also important as an indication of the growth of the value of insurable property in the country, and thus throws

light upon the expansion of the national wealth of Canada. In 1869 the amount was \$200,000,000, by 1900 it had increased to nearly \$1,000,000,000, by 1920 to just under \$6,000,000,000, by 1940 to over \$10,700,000,000, and by 1947 to over \$20,000,000,000; with the business of provincial companies and the business of Lloyds in Canada added, the 1947 figure exceeded \$22,000,000,000.

**Casualty Insurance.**—Casualty insurance includes: accident (personal accident, public liability and employers' liability); combined accident and sickness; aircraft; automobile; boiler (*a*) boiler, (*b*) machinery; credit; earthquake; explosion; falling aircraft; forgery; guarantee (fidelity and surety); hail; inland transportation; live stock; personal property; plate glass; real property; sickness; sprinkler leakage; theft; weather; and windstorm. In 1947 there were 259 companies reporting such insurance, of which 55 were Canadian, 70 British and 134 foreign.

Of the classes of business mentioned those accounting for the largest and the most rapidly increasing premium income are automobile, personal accident and sickness (including combined accident and sickness), and personal property for which the premiums written were less than \$36,000,000 in 1941 and close to \$87,000,000 in 1947. In the same period the premiums for all the casualty classes increased from \$48,340,334 to \$111,887,213. Premium income of provincial companies and Lloyds brings the total to \$124,526,612.



New life insurance policies ready for mailing. Canadians are insurance-minded people. At the end of 1948 they carried an estimated \$13,000,000,000 in life policies: this is an average of over \$1,000 for each man, woman and child of the population.

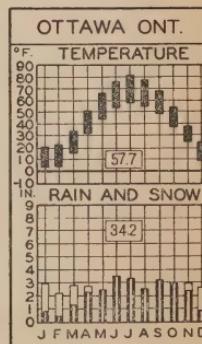
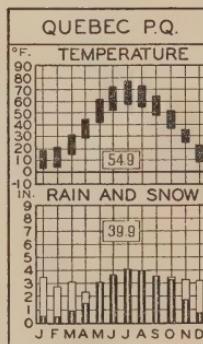
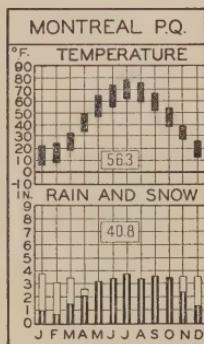
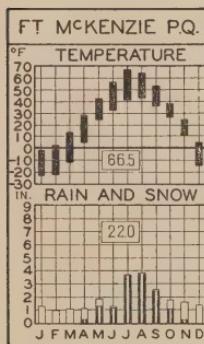
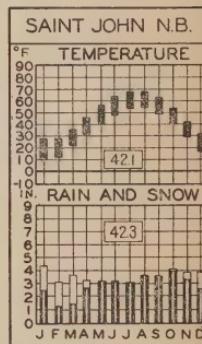
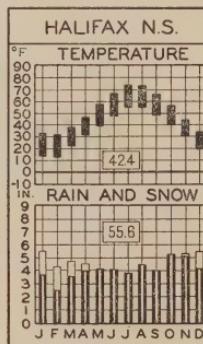
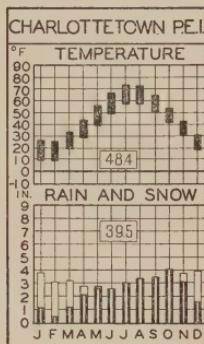
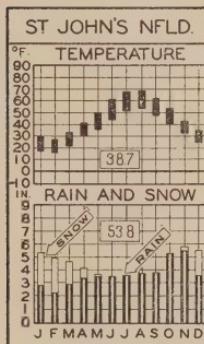


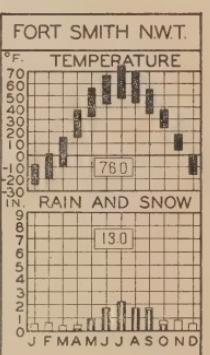
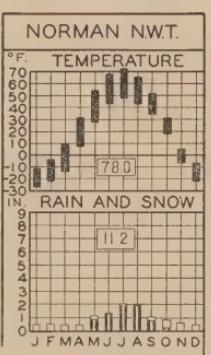
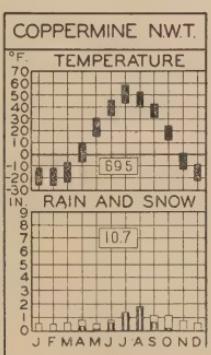
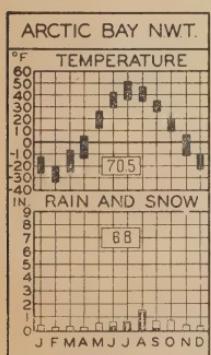
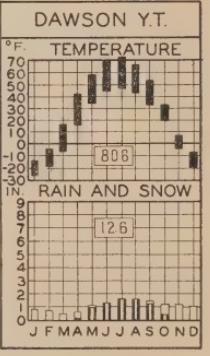
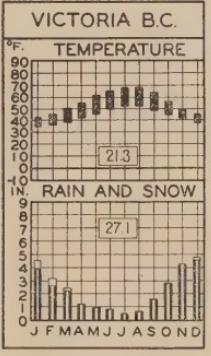
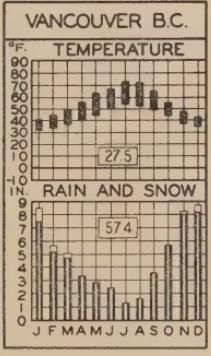
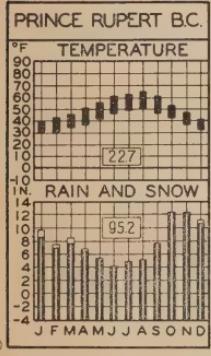
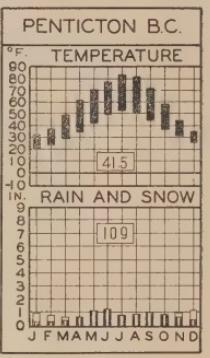
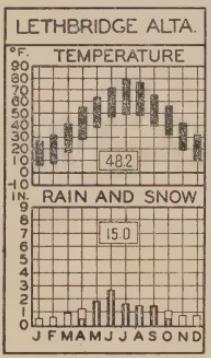
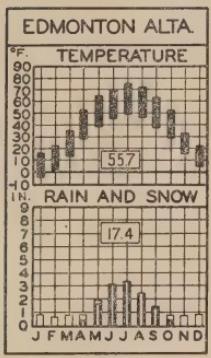
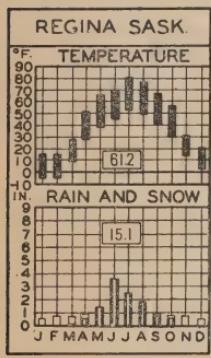
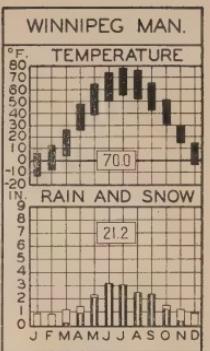
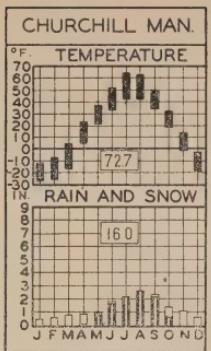
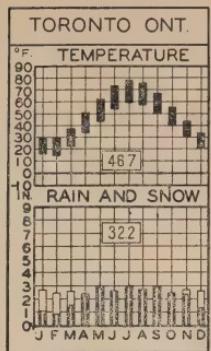
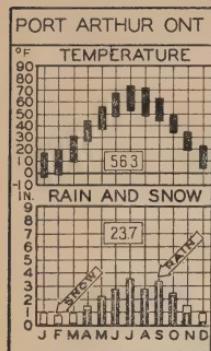
## Climatic Data

**I**N general, the climate of Canada is dominated by a movement of the atmosphere from west and northwest. Modified cold air from over the north Pacific Ocean enters British Columbia and loses much of its water-content while passing eastward over the mountains. As this air continues to move eastward to the Atlantic Ocean it produces mild to hot weather according to season. During the winter season, cold dry air from the western Polar Region moves eastward and southward across the prairies and Eastern Canada to the Atlantic losing some of its severity by the time it reaches the Great Lakes and Eastern Provinces. In winter, tropical air moving northward from the Gulf of Mexico has considerable effect on the climate of the southern portions of Eastern Canada, while in summer it plays an important role in furnishing rainfall to the Prairies.

The variations of climate across Canada are shown by the diagrams which follow. The length of each solid bar corresponds to the average daily rise of temperature from the lowest (usually at dawn) to the highest (usually one hour after noon in winter but two or three hours later in mid-summer). The black and white striped portions depict the rainfall and the water-content of snow is indicated by the white tops. The differences between the average temperature of the warmest month and that of the coldest month and the total annual water-content of all forms of precipitation are shown in the 'windows'.

TEMPERATURE AND PRECIPITATION CHARTS FOR  
CANADA AND NEWFOUNDLAND





# Long-Term Temperature and Precipitation Data for 35 Representative Localities in Canada

Locality	Height Above Sea	Length of Record	TEMPERATURES (Fahrenheit)				Heating Factor	Killing Frost Average Dates	PRECIPITATION (inches)				Number Days Rain/Precip.					
			Annual	Jan.	July	Highest on Record			Annual Day-Degrees <sup>1</sup>	Last in Spring	First in Autumn	Annual Total	Annual Snow					
Gander, Nfld.....	482	11	39.3	19.2	62.3	91	-15	9.477	May 29	Oct. 2	38.24	121.0	2.81	2.32	3.65	3.87	129	190
St. John's, Nfld.....	296	67	40.9	23.5	59.6	93	-21	8.876	June 2	Oct. 10	53.78	101.1	5.31	4.16	3.54	5.27	147	208
Charlottetown, P.E.I.....	65	41.7	17.8	65.6	98	-27	8.679	May 13	Oct. 22	39.47	113.0	3.76	2.78	2.98	4.07	119	162	
Annapolis Royal, N.S.....	30	25	44.4	24.4	64.4	89	-13	7.945	May 20	Oct. 14	41.41	74.8	4.20	3.40	4.19	5.42	115	140
Halifax, N.S.....	83	75	44.0	23.6	64.7	99	-21	7.748	May 11	Oct. 14	55.74	70.8	5.40	4.54	3.79	4.03	130	156
Sydney, N.S.....	197	69	42.3	22.1	63.6	98	-25	8.392	May 29	Oct. 13	50.24	97.9	5.16	4.03	3.37	4.70	127	165
Charlton, N.B.....	112	50	40.2	12.2	66.6	101	-43	9.705	May 19	Sept. 29	40.74	107.3	3.38	3.91	3.97	4.11	107	151
Fredrikton, N.B.....	164	67	40.7	13.5	66.1	101	-35	9.105	May 20	Sept. 24	42.80	95.5	3.87	3.53	4.11	4.11	108	149
Saint John, N.B.....	119	56	41.4	19.3	61.0	93	-21	8.587	May 4	Oct. 16	42.26	71.1	4.28	3.22	3.03	4.01	134	168
Arvida, Que.....	335	10	36.4	3.6	65.0	95	-42	10.780	May 19	Sept. 19	38.93	116.1	2.90	2.53	4.81	5.53	112	176
Fort McKenzie, Que.....	250	9	22.4	-12.0	54.2	91	-60	10.695	July 8	July 26	22.04	82.4	1.24	3.67	1.77	2.12	167	200
Lennoxville, Que.....	498	24	40.3	12.8	66.2	99	-48	9.130	Aug. 28	Sept. 9	39.56	89.4	3.46	2.60	4.12	3.63	104	150
Montreal, Que.....	187	55	42.8	13.8	69.8	97	-29	8.644	April 28	Oct. 17	40.80	112.3	3.76	2.60	3.74	3.42	112	164
Kapuskasing, Ont.....	752	19	32.4	-1.7	62.4	101	-53	11.913	June 14	Sept. 2	27.59	91.0	2.00	3.43	2.50	2.50	182	182
Ottawa, Ont.....	260	65	41.5	11.9	69.6	102	-35	8.915	May 7	Oct. 2	34.23	82.0	2.93	2.70	3.39	2.93	98	139
Port Arthur, Ont.....	644	62	36.2	6.7	63.0	104	-40	10.632	May 26	Sept. 20	23.66	42.9	0.91	1.49	3.56	2.45	78	129
St. Catharines, Ont.....	347	21	47.8	26.7	71.1	104	-12	6.718	May 7	Oct. 20	27.03	37.7	2.30	2.39	2.39	2.18	99	132
Toronto, Ont.....	379	105	45.1	22.6	68.9	105	-26	7.373	May 2	Oct. 14	32.18	61.9	2.71	2.48	2.95	2.43	109	145
Churchill, Man.....	115	30	17.8	-19.0	53.7	96	-57	17.052	June 28	Aug. 26	15.96	56.9	0.48	0.89	2.19	1.43	52	101
The Pas, Man.....	890	27	30.6	-8.7	64.6	100	-54	12.592	May 30	Sept. 7	15.44	44.9	0.61	0.81	2.22	1.16	59	102
Winnipeg, Man.....	790	66	35.0	-3.1	66.9	108	-54	11.446	May 27	Sept. 19	21.19	53.6	0.92	0.74	3.08	1.49	67	118
Prince Albert, Sask.....	1,414	54	32.9	-4.3	63.4	103	-70	11.620	May 30	Sept. 10	16.11	51.5	0.74	0.93	2.18	0.84	62	116
Regina, Sask.....	1,884	55	34.5	-0.7	64.8	107	-56	11.259	June 6	Sept. 10	14.70	28.8	0.51	0.74	2.38	0.86	59	109
Beaverlodge, Alta.....	2,484	31	35.3	5.6	58.3	98	-49	11.250	June 4	Sept. 17	17.19	70.1	1.27	0.78	2.21	1.11	76	127
Calgary, Alta.....	3,540	55	38.4	13.1	61.5	97	-49	9.494	June 1	Sept. 6	16.65	50.0	0.51	0.99	2.51	0.69	57	101
Edmonton, Alta.....	2,219	56	36.6	5.9	61.6	99	-51	10.356	May 30	Sept. 6	17.38	46.4	0.88	0.88	2.36	0.75	73	133
Medicine Hat, Alta.....	2,365	55	41.9	12.0	69.3	108	-51	8.890	May 12	Sept. 19	12.81	35.6	0.63	0.77	1.68	0.62	56	100
Cranbrook, B.C.....	3,014	35	40.7	16.7	63.2	102	-41	8.985	June 10	Aug. 28	14.41	56.7	1.80	0.68	1.14	0.89	69	106
Nelson, B.C.....	2,235	39	45.2	24.4	66.4	103	-17	7.445	May 13	Sept. 30	27.77	89.3	3.47	1.57	1.62	2.36	102	131
Penticton, B.C.....	1,121	32	47.8	26.8	68.3	105	-12	6.548	May 7	Oct. 22	10.85	24.0	0.98	0.68	0.79	0.83	83	102
Prince George, B.C.....	2,218	27	38.5	12.9	60.2	102	-57	9.772	June 18	Aug. 22	19.98	62.7	1.81	0.84	1.63	1.90	123	162
Victoria, B.C.....	2,228	54	49.5	38.7	60.0	95	-2	5.468	Mar. 18	Nov. 27	27.13	13.4	4.49	4.49	1.18	0.44	2.81	141
Dawson, Y.T.....	1,062	41	32.8	-21.0	59.6	95	-68	13.530	June 6	Aug. 19	12.61	56.2	0.87	1.53	1.53	1.17	63	117
Coppermine, N.W.T.....	13	13	11.3	-18.9	50.1	87	-54	19.710	June 25	Aug. 22	57.0	57.0	0.57	0.84	1.33	1.16	40	103
Fort Good Hope, N.W.T.....	214	31	17.0	-23.6	59.3	95	-79	17.520	June 15	Aug. 10	60.63	50.0	0.53	0.49	1.55	1.09	46	106

<sup>1</sup> Day-degrees represent the difference in temperature between the mean temperature of the air and the temperature of 65°F., multiplied by the number of days during which the outside temperature was lower than that figure. Fuel consumption for heating purposes will be proportional to these totals.

# National Parks of Canada

**T**HE National Parks of Canada are our great natural outdoor museums. The scenic beauty, the natural phenomena, the plentiful wildlife, the clear cool waters, and the magnificent virgin forests of these parks represent the best that nature has provided in a bountiful land. These areas, owned by all our people, are not exhausted by use. Given reasonable care and properly used they will continue to provide inspiration, education, and healthful recreation for everyone. They constitute Canada's greatest attraction for those who travel for health and pleasure.

More visitors arrive each year; 1,300,000 persons entered the parks in 1948. A considerable number of these came from the United States. This intermingling of Canadians with people from other lands, under the most favourable conditions imaginable, stimulates a spirit of goodwill and neighbourliness. Canadians from all parts of this vast country meet in the national parks on common ground, not as visitors from one province to another but as joint owners of a great national heritage.

The National Parks Service acts as trustee of this national estate and endeavours to administer it in such a manner as to safeguard it for the use of present and future generations. The roads providing access to the national parks and the facilities for the accommodation and entertainment of visitors are being constantly extended and improved.

The National Parks Service is also entrusted with the restoration and marking of places of national historic importance and the commemoration of services rendered by distinguished Canadians. A number of the more important sites containing the remains of early fortifications have been set apart as National Historic Parks. There is ever-increasing interest in these historic places.

Following is a list of the national parks and a brief description of each:—

## PRINCE EDWARD ISLAND—

Coastal strip 25 miles long on the shores of the Gulf of St. Lawrence. Recreational area; fine bathing beaches. Accessible by highway. Hotel and bungalow cabin accommodation within and adjacent to park. Equipped camp-grounds. Established 1937; area 7 square miles.

## NOVA SCOTIA—

CAPE BRETON HIGHLANDS. Rugged Atlantic coast line with mountain background. Fine seascapes from park highway. Recreational opportunities. Hotel and bungalow cabin accommodation within park area. Hotel and boarding-house accommodation adjacent to park. Equipped camp-grounds. Established 1936; area 390 square miles.

FORTRESS OF LOUISBOURG. National Historic Park with museum near Louisburg. Ruins of walled city erected by the French 1720-40. Interesting excavations. Established 1941; area 340 acres.

PORTRoyal. National Historic Park at Lower Granville. Restoration of "Habitation" or first fort built in 1605 by Champlain, DeMonts, and Poutrincourt. Established 1941; area 17 acres.

FORT ANNE. National Historic Park with museum at Annapolis Royal. Well preserved earthworks. Established 1917; area 31 acres.

## NEW BRUNSWICK—

FORT BEAUSÉJOUR. National Historic Park with museum near Sackville. Site of early French fort. Established 1926; area 81 acres.

NEW BRUNSWICK. A National Park is in course of development. Delightful recreational area on the Bay of Fundy between the cities of Saint John and Moncton. Forested region, wildlife sanctuary, rugged terrain. Area 79.5 square miles.

## QUEBEC—

FORT CHAMBLY. National Historic Park with museum at Chambly Canton. First built by the French, 1665. Established 1941; area 2.5 acres.

FORT LENNOX. National Historic Park on Ile-aux-Noix in Richelieu River, near St. Johns. Built by French in 1759. Established 1941; area 210 acres.

## ONTARIO—

ST. LAWRENCE ISLANDS. Mainland area and 13 islands among the "Thousand Islands". Recreational and camping area. Mainland accessible by highway; islands reached by boat from nearby mainland points. Established 1914; area 189.4 acres.

POINT PELEE. Recreational area on Lake Erie. Remarkable beaches, southern flora. Resting place for migratory birds. Accessible by highway. Hotel and bungalow cabin accommodation in park area and vicinity. Equipped camp-grounds. Established 1918; area 6 square miles.

GEORGIAN BAY ISLANDS. Recreational and camping areas. Equipped camp-grounds and annual youth camps on Beausoleil Island. Unique pillars on Flowerpot Island. Accessible by boat from nearby mainland points. Established 1929; area 5.4 square miles.

FORT MALDEN. National Historic Park with museums at Amherstburg. Site of defence post built 1797-99. Established 1941; area 5 acres.

FORT WELLINGTON. National Historic Park with museum at Prescott. Defence post built 1812-13. Established 1941; area 8.5 acres.

## MANITOBA—

RIDING MOUNTAIN. Playground and wildlife sanctuary on summit of Manitoba escarpment. Fine lakes; summer playground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1929; area 1,148 square miles.

FORT PRINCE OF WALES. National Historic Park at Churchill on the shores of Hudson Bay. Ruins of Fort built 1733-71. Established 1941; area 50 acres.

## SASKATCHEWAN—

PRINCE ALBERT. Forested region dotted with lakes and interlaced with streams. Summer playground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1927; area 1,496 square miles.

## ALBERTA—

BANFF. Magnificent scenic playground in central Rockies. Contains noted resorts, Banff and Lake Louise. Mineral hot springs; summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1885; area 2,585 square miles.

JASPER. Mountain playground and noted wildlife sanctuary. Contains majestic peaks, ice-fields, beautiful lakes and famous resort, Jasper. Mineral hot springs, summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1907; area 4,200 square miles.

WATERTON LAKES. Canadian section, Waterton-Glacier International Peace Park. Mountain playground with colourful peaks and charming lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1895; area 204 square miles.

**ELK ISLAND.** Fenced preserve near Edmonton containing a large herd of buffalo; also deer, elk and moose. Popular recreational area; bungalow cabin accommodation and equipped camp-grounds. Accessible by highway. Established 1913; area 75 square miles.

**BRITISH COLUMBIA—**

**YOHO.** On west slope of Rockies. Loft peaks, magnificent waterfalls, colourful lakes. Yoho and Kicking Horse Valleys. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1886; area 507 square miles.

**KOOTENAY.** Encloses Vermilion-Sinclair section of the Banff-Windermere Highway in Rockies. Broad valleys, deep canyons, mineral hot springs. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1920; area 543 square miles.

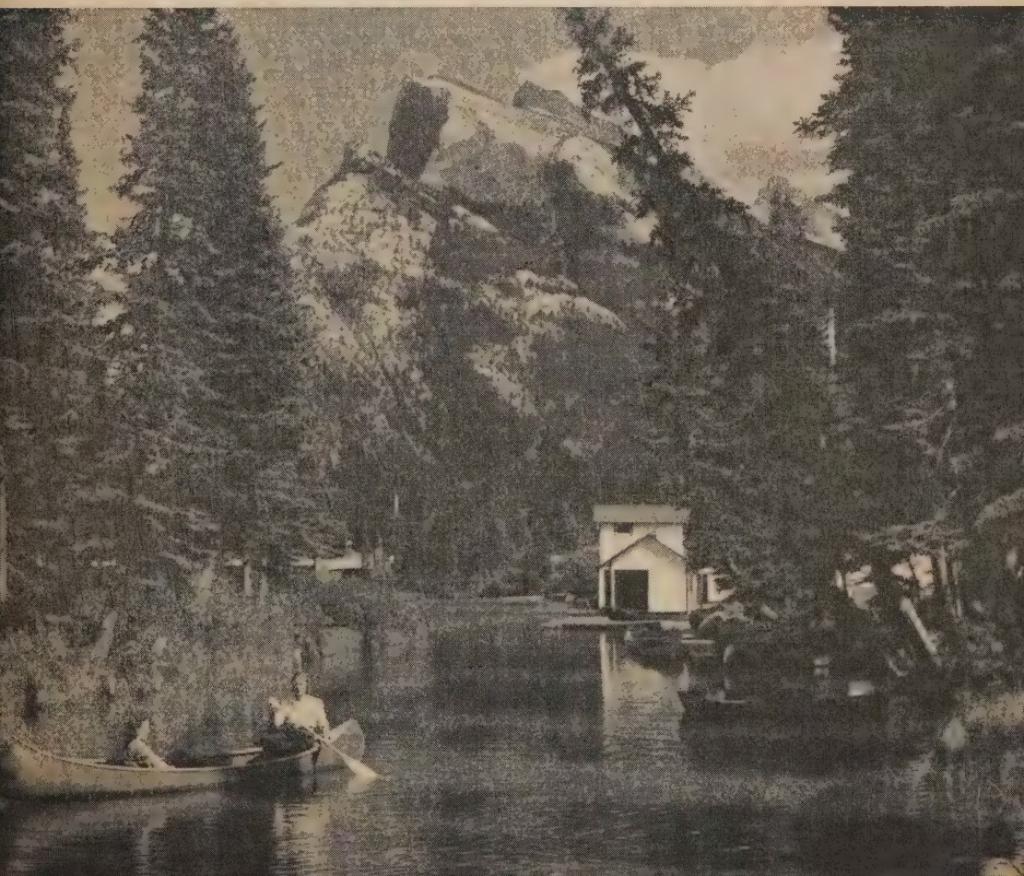
**GLACIER.** Superb alpine region in Selkirk Mountains. Towering peaks, glaciers and forests. Accessible by railway only. Climbing, skiing, camping. Established 1886; area 521 square miles.

**MOUNT REVELSTOKE.** Rolling mountain-top plateau on west slope of Selkirk Mountains. Colourful alpine meadows. Accessible by rail and highway. Summer accommodation in park. All-year accommodation in nearby town of Revelstoke. Equipped camp-grounds. Championship ski runs and ski jump. Established 1914; area 100 square miles.

**NORTHWEST TERRITORIES AND ALBERTA—**

**WOOD BUFFALO.** Immense region of forests and open plains between Athabasca and Great Slave Lakes. Home of largest remaining herd of bison on the Continent. Other wildlife species abundant. Established 1922; area 17,300 square miles.

*Mount Rundle, Banff National Park, Alta.*



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DISTANCES BETWEEN PRINCIPAL POINTS IN CANADA.\*

**Note**—Generally, the distances given are the shortest by railway.

A knowledge of distances in miles between principal points constitutes very useful information in these days of auto travel, but when an attempt is made to compile such data difficulties are at once encountered. Road distances are the logical choice, even though road distances are of little use in travel by car, as they do not include the time factor. Railroad distances represent usually the shortest practicable land distances between two points, and are often the only way to travel by freight and passenger traffic, as by rail. Again distances by air (sometimes called by law *line distances*) are also useful in practice, though not always traveled by air.

Where boat routes are given, the least approximation of the distance travelled is used. The air-line distances used are not necessarily the straight-line distances between points, but are the distances over the routes usually travelled by aeroplanes.

<b>From Halifax—</b>		<b>To Fredericton—</b>		<b>To Whistler—</b>		<b>To North Battleford—</b>		<b>To Watervale—</b>		<b>To Vancouver—</b>	
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